

OCTOBER 2000

This Old House

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• FINISH ON BUDGET

from the pros

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the doors



The month's Poster
Features 12 historic
door styles, from
Spanish Colonial to
Art Deco. See "Entry
Doors," page 133
By JENNIFER KIRBY
AND MURRAY LACROIX

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REPAIRING THE YACHT, P. 74



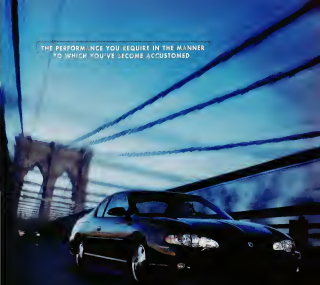
REPAIRING THE YACHT, P. 74

cover

When we requested their insights on working with contractors for our special feature on renovation strategies in the F.O.H. issue—Tom Gilre, Richard Truittway, Steve Thomas, and Norm Adams—were happy to put in their two cents. Their wisdom is invaluable. Together they have almost a century's worth of experience in the building trades. To learn more, see "Cracking the Contractor," p. 56. PHOTOGRAPH BY PAREZ BLANCHARD

PHOTO: © SHUTTER STOCK/PHOTO; ART: JAMES L. BROWN; DESIGN: JAMES L. BROWN

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—Gregg Kestner, *Ironmaster*



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overlooked a very important all-season feature. There is a switch on the back that changes the blade rotation from the cooling counter-clockwise motion to a clockwise rotation, which draws heat down from the ceiling and circulates the warm air. Just don't forget to flip the fan off and stop blade rotation before changing the switch.

JOHN AND LORRAINE MINISTERS,
Buckingham, Bucks. via E-mail

Keywords

The article on metal siding ("Stowing Horses" *Watauga*, July/August 2008) failed to address one important point: Is metal siding a good choice for metal cladding? We are planning a home on the Outer Banks of North Carolina. As reviewers, we're hoping to make it as sustainable as we can.

David and Marya Murray (Lynn, NY) are a couple.

Most likely, a mortal structure would do fine in your area, like the Gablehouse steel-sided house featured on page 52 of the July/August 2000 issue is located in Houston, which is subject to conditions similar to those near the coast in North Carolina. In fact, it has remained corrosion free for over years.

punch list

deficient policy of sharing income by short or long-term to the
 spread of a common law

Due to an editing error, we omitted from the Dictionary the names of the Sanskrit authors whose postscript's initials, *śaśana*, could be either *śaśana* (think *śaśana* of ten pages 33 and 34 of "Śaśana Hara") (Joshi 2000). They were both manuscripts by Kāśhāna. For a dealer near you, 800-814-2840 or www.kashana.com.



Advertisement for *Journal of the American Academy of Child and Adolescent Psychiatry*. The advertisement includes the journal's name, volume, issue, and page numbers, along with contact information for the publisher, Taylor & Francis.

Living History

I want to thank you for the article about the restored house in Houston's Old Sixth Ward ("Faded Rose of Texas," June 2008). Houston is very old, but we've always had a "build it, tear it down, and rebuild it" attitude. To the southwest purists out there, I would like to say this: The people who built these old homes did the same things that our parents did with their '50s and '60s houses. They remodelled, built out and up, and made changes to suit their needs and the changing times and fashions. In short—they lived in them!

The true value of my house lies not in the unpainted woodwork or beautiful (although the extremely grateful) for them, but in the structural integrity, craftsmanship, and history. I never intend to completely replace the floors, because every board and groove is a reminder of all that history. But while the former homeowners never had control, as I certainly wouldn't consider living without it.

Wife: Jane C. Burns, Minneapolis, Tenn.

I drove by the Old Bath Ward house recently—it is truly beautiful. But the story left me wondering how and when Matthew Cox, and his brother disposed of the 1,000 pounds of lead-based paint that they removed as the renovation.

W. T. Williams, *Historian, Tex.*

The Coven begged the patent and brought it to a local hazardous waste removal center, where professionals disposed of it. To register about state and federal level permit removal guidelines, call the Environmental Protection Agency National Lead Information Center at 800-424-1121.

Chart gives World's

An Alsatian resident, who was not willing to be quoted, was not surprised that police felt she "Fit Fitt," *Dailies*, July/Aug. 2000]

OUTTAKES



BEHIND THE SCENES AT THIS OLD HOUSE

BY JORDAN REED



TOM fans know that the show's key players are among the most skilled people on television, but they may not realize that the gaps' abilities extend far beyond what they can do with a hammer or wrench. Who knew, for example, that Richard Trethewey is an accomplished pianist, having studied diligently for eight years as a kid? We found out when he accompanied a photographer and staffer in a church being renovated by ActionCares volunteers. "My morning ritual is shower and then two or three songs," says Rich, who also learned childhood accordion lessons. "It's like an alarm clock for the house." Steve Thomas and Norm Abrams are more athletic. Newly eight years of lessons have made Mr. Thomas quite an accomplished downhill skier—he recently took to some steep Alaskan slopes successfully by himself.

TALENT SHOW

Skating and boating a show both take a tremendous amount of focus to be done successfully," he says. Norm is also adept on skis, though he prefers water over powder. Unfortunately, he has been forced to curtail his time behind a powerboat due to a torn rotator cuff injury he sustained two years ago. (Viewers may remember him sporting a sling during the Watersnow project.) "Now my wife and I are giving kapers a try," he says. Like his doing comedes, Tom Sills also works up a sweat. For years, he and his wife, Sue, have filled up leisure time by country dancing. "We sit a little above average," the modest two-stepper says. "But I'm no Gene Kelly or Fred Astaire."

PHOTO: JAMES HARRIS

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OUTTAKES



FROM THE NEIGHBORHOOD

When the husband-and-wife architectural team on the current *TO H* project, John (Jack) French and Linda Neuharbin, moved to Charlestown in 1978, it was hardly an exclusive enclave. In fact, the area was so run-down that insurance companies wouldn't provide homeowners policies to residents, and when the pair sought a renovation loan, they were told to move to the suburbs. But these days Charlestown is one of the hottest areas in Boston, and French and Neuharbin have been instrumental in that renaissance. "We never intended to be Charlestown architects," says French. "But we've become pretty well known in the community." Show producer Bruce Irving agrees. "Every time we said Charlestown, historic renovation, and architect," says Irving, "Jack and Linda's names came up." The couple also volunteers their time: French works with CityBuild, a local program that teaches high school students about architecture, and is a cofounder of the McLaughlin House, a center for women recovering from substance abuse. Neuharbin is on the board of Historic Neighborhoods—a Boston-area nonprofit that focuses on urban architecture and history—through which she occasionally teaches fifth-graders. And she's chairman of the Bullfinch Society, which raises money for public school programs. Though her volunteer load seems heavy, Neuharbin relishes the opportunity. "Your community is a lot more than just buildings," she says. "It's important to us to help out the people who haven't had the same privileges we've been lucky enough to have."



PHOTO OPS

In an effort to rotate the current spots for real-time images on the Web, the staff at *www.thetownhouse.com* have set up three digital cameras at the Charlestown project, providing show fans and construction aficionados with a 24-hour view of the new house renovation. (Closed images are used to film the every two hours.) Two of the cameras focused from the street where the back of the remodel

is happening: one from the basement (the view is shown above) and the other from the second-floor kitchen. A third camera views the street on the top floor of a nearby neighbor's home, giving us a peek at the back and side of the house. The site also features a photo archive, displaying programs to be seen from the beginning of the renovation through to its present status. A few pics from *Aren't* may be missing, however—Don "Shoe" Lewis had trouble avoiding the cameras when during early demolition. One long-haired worker tipped over a wall-mounted unit off the wall two more times more than when a hammer and a nail snagged their cables, and even a falling ceiling missed some heads. "We saw it and it taught a lot," Bruce says. "Those cameras really got knocked around!"

October 2000 Calendar

THREE THINGS
 September 30–October 1 House Show at the Backlot, Denver Mechanics Mart, 451 East 25th Avenue, Denver, CO 80219. Details: 303-832-4100 or www.gardenersclubhouse.com

October 12–22 Arizona Fall Home Show, Phoenix Civic Plaza, 222 East Adams Street, Phoenix, AZ 85006. Details: 602-277-4043 or www.azhomeandgarden.com

HOME SHOWS
 October 27 Gordon Hardware and Supply, 214 East Lincoln, Detroit, MI 48215. Details: 313-778-4112

October 31 Home Depot, 3000 West Belvidere Avenue, Littleton, CO 80120. Details: 303-794-0332

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HOUSE CALLS WITH STEVE

Tall, Dark, and Handsome

A kitchen is revamped for a single guy

Stephen Ford loved almost everything about his 1914 home in Portland, Oregon: its Arts and Crafts-inspired architecture, its wide front porch, and its location in a friendly neighborhood only 15 minutes from his office. But he was less than charmed with the kitchen, which dated with the rest of the house. During the 1980s, former owners had begun to remodel the space but never had a chance to finish it. After putting up with the kitchen for six years, Ford found a different solution to many homeowners in his position: "Should I move to a place with a better kitchen," he asked himself, "or remodel this one the way I want it?"

BY KNOX MURPHY



PROBLEM

Even though the existing kitchen had a reversible layout, it had little else going for it. "It was an 'out-of-a-box' type of kitchen," says The Old House host Steve Thomas. Raised-panel cabinets doors and drawers were made from oiled-and-stained golden oak, the counters were plastic laminate in a severely dated olive green, and the floors were worn-down vinyl. Track lighting stood in for everything but the work cases. What's more, the previous owners had moved the laundry area into the basement to the first floor, cluttering the passageway into the kitchen.

SOLUTION

In planning his renovation, Ford worried more about saving time than saving money. A proven lawyer, he lacked the freedom to concentrate on a kitchen solo. He needed someone who could, so he put it, "tell me what I wanted and take over." He found his alter ego in Barbara Murphy, a kitchen designer with Ned Kelly Designers/Woododes, a firm in Portland. "Ford's a kitchen planner's dream," says Steve. "A 30-something guy with adequate resources, who wanted changes but didn't know how to pull it all himself."

Although the footprint and layout were to remain the same, Murphy guided the kitchen to the walls "in one breath," she says.

Steve, Stephen Ford's kitchen is a classy update on its golden oak predecessor (above, left). The hardwoods are topped with a marble-and-laminate speckled granite in a greenish tint. The passageway into the kitchen is now clear.



House Calls With Steve covers architectural remodeling of period homes and today. Send "letters" and "photo" photos, floor plans, and a brief description of the completed work to: The Old House Host, 1225 Avenue of the Americas, New York, NY 10020. If your project is finished, T.O.H. will set up a consultation with Steve about the project, pay you \$150, and photograph it for a future issue.

PHOTO: PHOTOS BY STEPHEN; PHOTO: BARBARA; PHOTO: STEVE; PHOTO: STEVE



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HOUSE CALLS WITH STEVE

IDEAS NOTEBOOK



"I like stainless steel's rugged durability for sinks," says *The Old House* host Steve Thomas. "You can scrub a 50-year-old sink and it looks as good as new." Common sense, too! The larger, contemporary-style stainless steel sink has two integral hinges to support an optional stainless steel, two-bowl deep bowl. Made in a 316 stainless steel, it's the strongest sink. At 32 inches in diameter, a round sink can be used in a well for an extra deep sink in an island. This 32-inch-wide stainless steel sink is a 100% stainless steel sink.

PHOTOGRAPH BY NED MATURA



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HOUSE CALLS WITH STEVE

FLOOR PLANS



Three essential changes: She removed a greenhouse window above the sink and a peninsula that divided the cooking and eating areas, then relocated the laundry equipment to the basement. "We finished about once a week," Murphy says. "So he doesn't smell the stains."

Ford was clear from the start that his main concern was aesthetics, so Murphy devoted the bulk of his time—and his budget—to the selection and layout of the cabinets. "I told Barbara I wanted them to look solid, not fancy," Ford says. Taking her cue from the dark chestnut built-ins around the rest of house, Murphy opted for rich-looking mahogany-stained cabinets. "Because the kitchen opens up to the rest of the

house, it is a room-on-display," says Steve. "Otherwise, the cabinets tended to be as flimsy crafted as furniture—and they are." For a cleaner and more traditional look, Murphy carried the cabinets to the ceiling and capped them with deep crown moldings. At 6 feet 4 inches, Ford is tall enough to reach the top shelves. Murphy also raised the base cabinets 2 inches higher than the norm, to 36 inches, to accommodate his height.

In her plan, Murphy allowed Ford a versatile alternative to a peninsula: a movable 4-foot-long island topped with butcher block. "It designed into be used as an additional prep area, a serving station

PHOTO TOP: UNDERMOUNTED SINKS SHARE A SINKS. BOTTOM: ABOVE, TRAFFIC FLOWED THROUGHOUT THE KITCHEN WHEN THE PENINSULA WAS REMOVED.

PHOTO TOP: UNDERMOUNTED SINKS SHARE A SINKS. BOTTOM: ABOVE, TRAFFIC FLOWED THROUGHOUT THE KITCHEN WHEN THE PENINSULA WAS REMOVED.

HOUSE CALLS WITH STEVE

MOVIE The dining area feels much more spacious now that it connects directly to the work space. The roll-around island can be pulled close to the table and pushed into against it as a buffet.

for the dining area—even a snack spot," she says. Steve Thomas approves. "The worktable is a much better solution than a stationary island," he says. To tie it in with the room, Murphy designed the piece to echo the proportions of the cabinetry. "The shelf underneath aligns with the lower rail of the base cabinet doors," she explains.

Murphy kept the sink in its original position beneath the window but replaced the double-level model with a pair of stainless-steel undermounted bowls, one large and one small. The new window is custom made with insulated glass leveled at the edges for a Craftsman look.

Though Ford rarely cooks, he was fully aware that his kitchen



should function well, so Murphy gave him a gas grill, one that served four burner gas range with a combination microwave oven over it. "That's all he really needs," she says. The fridge was 36-inch-wide stainless steel model.

FINISHING TOUCHES

In her quest to keep the kitchen from looking "girly," Barbara opted for a dark green curtain tile for the backsplash, a hue that's reflected in the walls. Slam metal cabinet pulls are a simple but better shape, so "they're easy for my big hands to grab onto," Ford says. Recessed lighting balances

work and overhead fixtures. The details add up to a kitchen that blends beautifully with the rest of this historic house. And so Steve's opinion, that's a much better investment for a single guy to make than "buying the predictable sports car." ■

PHOTO TOP: SINKS SHARE A SINKS. BOTTOM: ABOVE, TRAFFIC FLOWED THROUGHOUT THE KITCHEN WHEN THE PENINSULA WAS REMOVED.

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LOOKING FOR TROUBLE

The thinking about inventing a "lean-upper" wall brace reminds me and all of you how easy it is to overlook a problem in a house. Is there any quick way to spot potential trouble to others' eyes?

Orville Robinson, Rochester, Mass.

I advise your architect, but anyone looking for a quick way to see up houses without hiring a pro or asking me to learn about them, take buying a flawed structure.

Most people call in a house inspector or when buying a place, but I prefer the advice of specialists to that of generalists. After all, who would be better than a plumber to check pipes, or an electrician to check the wiring, or a pest-control expert for sprague bag damage? If you have specific concerns about a structural system, I'd recommend that you hire an engineer who is experienced in residential construction. For everything else, go to contractors you've worked with in the past, ask them to accompany you on a tour of the house, and pay them for their time.

If for reasons of cost or money you choose to go with a house inspector, look for one who was once a builder or remodeling contractor. He'll have a better view of what can go wrong.

I'll give you one key tip, though: Look for any signs of water damage, from the roof to the foundation, and aging peeling paint, missing wood trim, and old ceilings, crumbling plaster, moldy bedrooms walls, or a wet basement. You'll be able to spot many of the problems an inspector would point out.

STOPGAP MEASURES

Five years ago, we added a single-story family room to our 1940s home. Shortly after we completed the work, the three-piece crown molding separated slightly from the ceiling. We caulked this seam, but the crack just reappeared. What do you suggest?

Ann Harris, Portlan, Ohio

Any molding made of solid wood (rather than medium-density fiberboard or foam) can expand and contract across its width as the seasons change. And the wider a molding, the greater the movement. I can think of a couple of reasons for this problem.

One is that it typically takes a whole—seven a year or two—the new framing to dry out and stop shrinking. The usual solution at this time is to ignore gaps until the structure reaches equilibrium, then add two applications of acrylic caulk, which has good adhesion and flexibility.

The fact that you still have a problem after two years tells me that the top edge of your molding may not have been nailed securely into the joints for the blocking between the joists in the first place. When nails are only resting in drywall, there's no lag to stop the crack from opening up again.

Try loosening your joints with a small fender and sanding the molding to them. But if there's no wood to sand, you could try gluing the molding to the ceiling with construction glue. It's not a guaranteed fix, but it might work.

FLOOD CONTROL

Our 10-year-old house sits on a hillside overlooking a river and has a septic tank. The river level is normally about 10 feet below the house, but about a month after we started it, Hurricane Floyd hit the area and dumped over 24 inches of rain on us in 24 hours. As we were swept into our basement through cracks between the slab and the block walls, we stopped, swayed, and hurried to keep the water from flooding a single floor drain. When the water ended, we had about 3 inches of water in the basement. How would I like to finish the basement but want to solve our water problem first. One company quoted us a price of \$5,000 to spray foam-

glass into the block walls and about 12 inches into the floor, suggesting the technique is used frequently in waterproof industrial facilities. Does this sound like a reasonable solution?

Arnold Mosier, Jr., Germantown, Va.

We'd all like to believe that our houses will protect us from everything, but when a storm like Floyd hits we're reminded of just how vulnerable they are, and we are. Granted, you spent some serious money on the hurricane, but it sounds like you have made it out rather easily thanks to that one floor drain. Spending \$5,000 on a dubious technique to prevent modern damage from a once-in-100-year storm seems excessive to me. You'd be better off with sumpers, less expensive, and more dependable solutions, such as ensuring proper drainage around your house, pinning the interior foundation walls with a concrete-tie post, and following them

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ASK NORM

Here's a method for finishing dry basement doors ("Keeping Your Basement Dry," Norm Lee 1979, p. 40). And no matter what, don't ever let that floor down get soggy.

BETTER SIDING TRICK

I live in a contemporary style house that was built in 1977, and I think I have a big problem with my plywood siding. Along the bottom edge of each sheet, the builder inserted an L-shaped piece of wood out of the siding with the short leg behind the plywood and the long leg of the L overlapping the top edge of the next 4x10/12/16 board. It must be there to hold the siding up, the exposed part of the L has cupped upward, so it acts like a trough to collect water every time it rains. Naturally, the L is rotting, and I've been digging out the rotted wood on these

sides. That leaves a gap of about 1 inch between the trim and the plywood. What do you suggest that I do next?

DINA MOORE,
GUMMERSVILLE, N.C.

I think it was Mr. Magoo who said, "That's the smartest thing I've ever heard of!" and he'd probably say that a lot if he had followed your builder around. Unconventional thinking like this is just about the perfect way to destroy siding. Fortunately, there's no easy way to protect basement trim—metal Z-flashing—due also keeps water out of the horizontal joints between plywood. One way of the Z-flashing behind the siding's bottom edge, the other hangs over the siding or trim below. If you can't find any locally, a close metal shop can make some up using aluminum or copper stock.

Here's what I'd do: Remove the 4x12 trim—it's probably rotting anyway—and dig out the remains of your L-shaped "flashing." Then I'd replace the 4x12s with MDO (medium-density overlay) plywood or an engineered lumber product such as exterior-grade hardboard. Neither product will warp, twist, or shrink, even when used in wide dimensions. Prime all surfaces

before caulking, and then protect the top edges with Z-flashing.

WIRING UPDATE

I just purchased a home built in 1950. It's in very good condition, but I'd like to update the wiring, a knob-and-tube system with two-prong outlets and 100-amp service. I've had two electricians check it and both of them say that it's too good to leave it alone. The previous owner installed an air conditioner and a tank furnace and rewired the wiring for both to a separate circuit breaker panel. What do you think?

RONALD LUKAS, BRIDGEVIEW, W.Va.

I've seen a lot of houses where the wiring is old but still sound. But Allen Gaffner, an electrician who has done work for our series

The Old House

people, says that it's the condition covering the wires, not the wires themselves, that might be a problem. Over time, old insulation wears brittle and crumbly, and if a wire becomes exposed, that can lead to short circuits and fires. He suggests checking back with the two electricians who have already assessed your house to make sure the wires' insulation is still in good shape.

Gaffner figures that your 100-amp service should suffice. He'd be more inclined to add capacity to serve big appliances than to go through the trouble and expense of upgrading service to 200 amps, looks like. Most of the last electricians who worked on the house did the same way.

As for the two-prong outlets, he says there's no practical way to ground them. A knob-and-tube system doesn't flow for it. But rather than completely replace the wiring, Gaffner suggests that you not now, grounded circuits just to those locations where a stereo, a TV, a computer, or any high-load appliance (such as a refrigerator) might be plugged in. This will leave the rest of the system ungrounded, but at least the equipment that needs protection has it.

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Secret Service

Like mechanical butlers hidden inside the walls, dumbwaiters haul groceries, laundry, and firewood from floor to floor

BY DOUGLAS SANTERREIN



In their Appleton, Wisconsin, kitchen, Nancy and Larry Bar use an electric dumbwaiter built into the wall to haul their groceries from the garage below.

With two teenage boys at the house, Laura Roney spends a lot of time washing a never-ending stream of dirty clothes. That's why, when she and her husband, Patrick, began planning their new home in Santa Rosa, California, she asked the architect to locate the laundry room upstairs near the bedrooms so she wouldn't have the burden of carrying the heavy loads up and down the stairs. After some preliminary sketches, though, he told her that the washer and dryer wouldn't fit anywhere but the basement. "He suggested a laundry closet," says Laura. "I looked at him and said, 'But that goes only one way!'"

Instead, they installed a dumbwaiter. And in the five months since the Ronays moved into their new home, this small elevator has successfully taken the heavy lifting out of Laura's laundry day: it carries soiled clothes and linens down to the basement from the second floor, and a few days're needed and folded, delivers them back upstairs.

If it sounds like a case of modern technology solving an age-old hassle, it isn't. Thomas Jefferson installed two dumbwaiters at Monticello, his estate near Charlottesville, Virginia. And by the Victorian era, these vertical valets had become must-have features for upscale city homes, keeping food prepared at the first-floor kitchen to the dining rooms above. They fell out of favor only in the mid-20th century, as house styles flattened and ranchlike forms, but with so many evolutionary homes now being built on small lots, and so many homeowners seeking

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ing ladders and latches, dumbwaiters are back in style for both restaurants and new homes. "Our sales have doubled in the past five years," says Jeffrey Rubenstein, president of Efficiency Systems Co. Inc., elevator and dumbwaiter manufacturer in White Plains, New York. People especially recall them to carry groceries from the garage to the kitchen or linens from the basement to the living room.

The modern dumbwaiter is little more than a handle metal cab that rides up and down a vertical shaft way by control of plastic chains with ball bearings inside that lock onto two stainless-steel rails. A cable-and-pulley system connects the cab to a hand-operated rope or an electric motor. Manual models, which typically cost \$3,000 to \$6,500 (see info), use counterweights, so it takes little effort to lift loads up to 250 pounds. Electric dumbwaiters have a removable 1/2- to 3-horsepower motor that sits at the top or bottom of the shaft, winding and unwinding steel cable. At \$6,000 to



The *Rube's* dumbwaiter also helps with carrying the laundry. Its dumbwaiter door is next to the washer and dryer. Jeffrey Rubenstein, president of Efficiency Systems Co. Inc., recommends a cab that's at least 24 to 30 inches tall, wide, and deep. "That way a laundry basket will fit in it," he says.

\$20,000 (see info), they offer greater capacity—up to 500 pounds—and faster service.

Opening a manual dumbwaiter requires opening the door and pulling on the rope while keeping hands clear of the moving cab. Manual dumbwaiters have latches to prevent any movement when put in one position or the rope. Some models have dual sliding doors mounted on the cab, which open only when it docks at its opening. Manual models have latches on the rails that lock the dumbwaiter in place before the doors. They can open only when the cab is there and remain closed when it's elsewhere. Some systems "sense" a jammed cable, slowing the motor down when the cable has gone slack.

or a crane fixed in place on the motor.

The shaftway—typically a 2-by-2-foot chase framed with 2x6s and lined with one-half-inch rated wallboard—is simple to incorporate into the plans for a new house or addition. But adding one to an exist-

ing home can get tricky. Space can sometimes be found in the chase once used for furnace air return, or chimney, or even long-gone dumbwaiters. Another possibility is to build a shaft on the outside of the house or through closets positioned one over the other. A fire can spread quickly up a chase, so Rubenstein recommends installing a smoke detector at its top.

The dumbwaiter itself is typically sold as a kit containing everything the contractor needs to install the system—hardware, motor, rails, doors, cab, pulleys, and cables. After installation, it should be given a routine maintenance check by the installer about every two to three years for hand-operated models, annually for electric. "If the dumbwaiter never runs, the user is the one who's not working," says Bill McMichael, general manager for Waupaca Elevator Company, "they should have them fixed right away."

Safety wasn't a major consideration for Ginger and Jack Kravens when they added a dumbwaiter to their Seattle home. "I use it for laundry, to hand flowers, arrange supplies up and down, and to just carry stuff around this big house," says Ginger. But due to her father's two rambling grandsons, they decided to take a few extra steps. "These systems aren't kidproof, but installing doors more than 36 inches off the floor and putting locks on doors should keep children out," says Ginger with a chuckle. "I'd probably have said that myself." ■

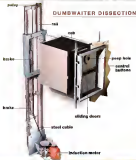
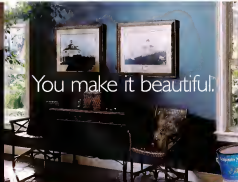


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**EXAMPLE 1** *Typical analysis.*

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All Squared Away

Replacing a broken bathroom wall tile

With the broken tile completely removed, the newly square recesses of layers of different materials are exposed. Just one more step.

BY ERIC SANDERS

It's a minor but nagging problem. A tile has broken—where? In the shower and around a toilet or front-homesowner dream—until now it's a square hole in the wall. Many people feel that the shape of the hole is too weird to waste cutting in a pin, they'd rather live with it than deal with it. But a cracked tile can be a gateway for water and should be replaced before it starts leaking through surrounding tiles. Jon Horvath, a tile contractor who has worked on several Thousand Oaks homes, says the repair is a more involved labor. "Homeowners don't realize they can't do the work themselves, but as little as \$300 to \$400 is all it takes."

Horvath has come up with a way to do a shower or toilet room, to make sure that includes replacing the tile in the shower stall. A broken wall tile has the problem of being a square hole

in a wall that is not square. Luckily, the homeowners have a couple of the 4-by-4 inch squares left over from the original installation. If that's not the case, Horvath would have purchased a new tile from an architectural supplier—such as behind the door—where the tile is on the wall in a drywall and where he can check the replacement with a close match or a decorative tile. Horvath, getting the necessary tools for the job—hammer, 1/2-inch cold chisel, scoring knife, utility knife, nail gun, spade, putty, and putty knife—will be working.

Leaving a deep hole in the wall, Horvath strips the utility knife and a flat bar (some people use an offset, a set of two chisels), and begins scraping the junk around the broken tile with a scoring knife. As the chisel, which is a flat blade, makes the great cut, he keeps his thumb pressed firmly against the tile so steady the knife so it doesn't slip and pierce

PHOTOGRAPH BY DAVID CARMACK



On parties, Lynchburg is the place to be. Photo by David Carmack

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Folks in Tennessee have a knack for storytelling. And there's no better Halloween yarn than that of the Wyoocoer, a mythical beast as big as a barn who roams our hills at night. True, no one's ever seen the critter, but the tale still inspires shivers in those who hear it. Fortunately, we have just the thing here in Jack Daniel's Country to warm up an October chill.

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1. Removing a broken tile is simply a matter of divide and conquer. For Ferrante, score the tile vertically and horizontally through the glass layer. 2. Use the chisel to crack the square into easily removable pieces. Once he places the new tile (3), it's hard to pick it out.

neighboring pieces. "We don't want to have to replace more than one tile," he says. Concern about excess damage also kept him from using motorized tools. "Overkill," he calls them. After two or three fine passes with the scoring knife, Ferrante switches to a utility knife—its thinner blade is better able to reach into the joint.

With the grout gone, Ferrante takes his scoring knife and scratches a line about 1/8 inch deep down the center of the tile. Then he quarters it with a similar horizontal slice. "This makes for a cleaner, more controlled break," he says. Holding a cold chisel against the center line, he delicately taps it with a hammer to crack the tile and looses each section enough to pry it off the wall. Once all the pieces are removed, he chisels out what's left of the mortar that held the tile to the wall and exposes the underlying concrete backboard. Any remaining debris is removed with a damp sponge.

When the backboard is completely dry, Ferrante mixes up a small batch of thinset mortar, his favored adhesive because of its sheer ease. Scooping some into his angled-notched margin trowel, he applies a 1/4-inch coat to the wall and buries the back of the tile with a layer of equal thickness. Then he presses the tile to the wall, seals it

with a raggle, and covers it. After running his finger along the edges to level the tile, he carefully wipes off excess mortar with a clean, moist sponge. The mortar sets in about 20 minutes.

To fill the open joints, Ferrante measures 2 tablespoons of white nonsanded grout into a wheeled-clean plastic bucket, pours in a few ounces of flexible latex additive, and stirs vigorously with his trowel until there are no lumps. "Anyone who can make liquid can make this," he jokes. But he also has a serious warning: "This is cement—it burns, so wear rubber gloves." He lets the mix sit for five minutes so the latex additive can rehydrate the grout, then loads up his flex trowel grout to check its consistency. Too loose and it will slide off the trowel and leave pinholes as it sets. Too stiff, and it will harden too quickly. Joe's hands is just right, "like mayonnaise."

Holding the float at a 45-degree angle to the wall, Ferrante works the grout across and into the joint, filling it with as much as it will take. After a 10-minute wait, a latex developer, which he buys repeatedly with a moist sponge and the wall gleams. In another 24 hours, when the grout has cured completely, the tile is indistinguishable from its neighbors. ■

JOINT DISEASES

The first in the shower stall or tub external leak line, but these great lines—discovered, evoked, or misread—ugh! They're begging to be fixed with fresh grout. But before you start scraping the old stuff out, consider Ace Ferrante's warning: Removing grout is labor intensive, extremely tedious, and likely to result in slipped or scratched tile. Besides, he says, new grout doesn't adhere well to etched tiles because of the soap scum and body

cream it's better to retile when the grout starts to fail. "New tile is cheap compared to the hundreds of dollars you'd have to pay someone to dig out the joints."

Beyond English, of The Emerald of America, disagrees. He says that the F.G.A. guidelines permit repointing—commercial designers can remove the old seal seams—but he admits that he's personally combined many a like doing it. If the grout is stained by mildew, English says

To repair mildewed subtile, Ferrante first digs out the old caulking with a scoring knife. He replaces it with his favored latex-grout mixture, which cuts deeper on deck rails because its porous. "Grouting is waterproof," he explains. "Any water or vapor that collects behind the tile can't escape, attracting mildew." With his float, he coats the joint and pushes it at 45 degrees. He pushes diagonally up and across the grout between the tub and wall until he can't press any more grout in. Then vapor off the excess with a moist sponge.



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Space Mission

A California couple push up their sleeves and bring down the wall in their compact bungalow.

It's one thing to design an addition on paper; it's quite another to build it yourself. James McCalligan's craving for an architect couldn't prepare him for the hands-on renovation of his first home, a three-bedroom, one-bath 1990s bungalow in Santa Rosa, California. "At a guy who usually just draws the plans for these jobs, it's pretty rare for me to see a project finished project will turn out," says James. "And if you like doing construction, you know you can watch others and learn from it's done. But when you're the one going out to do the building, and you watch your dream with a hammer a few times, you begin to think, Okay, let's scale that down to something more manageable."

It was this realization that compelled James and his wife, Cheryl, to take a second look at their original vision for adding rooms to the 1,410-square-foot house. ("The place felt like an apartment when we entered it," James says. "The whole was cluttered and cluttered up.") Their design would have put another floor on the single-story structure, providing them with a fourth bedroom and a bath. But when the project began to seem like a Herculean task, they would push the limits of their budget, skills, and patience. James and Cheryl's crew came up with a simpler plan. Scrap the entire story, sacrifice a small bedroom to make a master bath and walk-in closet, decompartmentalize the first floor, and open patios and sight lines



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to the front and back yards to add a sense of spaciousness without actually increasing square footage.

That first step was to fuse the living room and kitchen by taking out the nonbearing wall separating them. The only difficulty this task posed was the door that rose as the plaster came down. The removal of the wall forged a large L-shaped space encompassing the whole front half of the house, moving the kitchen area from the elbow to the short end of the L, blocked a view of the sink and cupboards from the main entrance and living room situated in the longer leg. To demarcate the living and dining areas, James installed a large 6-foot-high by 10-foot-wide bow window on the living room side of the front facade. The shot 12 square feet of additional space it occupied opened the house to the front yard and lent the room a defining element.

James worked mostly by himself when he extended the floor joists under the window, a task made easier by his frequent presence on construction sites. "I'm exposed to this stuff all the time," says James, "so I wasn't worried about tackling this job." He scored two 2x6s once each crossing 2x8 joists, bolting them over the 2 feet he needed to support the new floor. He was able to fit the window beneath the existing eaves. "The only thing I couldn't do myself was put in the heavy 6-by-16-inch header," he says. "I had to call



James and Cheryl McColligan removed a wall dividing the kitchen and living room (above) to create a great room with a natural flow. The floor-to-ceiling bow window (left) opens up the new dining area (right) to the living room (right), while the placement of furniture distinguishes where one room ends and the other begins. Cheryl likes the way the connected areas seem to flow from room to room.



my friends to help pick up that end of the roof about a half inch, knock out the existing studs, insert the new header, and fit the prefabricated window." The front-facing bow window balances a set of sliding glass doors leading to a back deck. New pocket doors swivel into a formerly solid wall between the living room and a small bedroom-composite room now afford a direct visual path from the front door to the backyard through the glass doors.

"We wanted to make the spaces in the house more fluid, more connected," explains James. If all the floors at the L could have the same finish, he reasoned, the room would feel larger. "Keep in mind there's a change in the flooring material, it's a subtle delineation of space." James had hoped to find wood floors under the vinyl tile at the foot of the L, but instead found only layers of linoleum. And the strip oak floor in the living room had been so damaged by



environmental air conditioning and water conditioning, and a big situation.



WATER



A new bay window (left) outside the living room in the front yard, one of the many ways the new plan improves the union with the outdoors. The couple just finished all kinds of smart equity with the house, then, Cheryl's personality keeps this from a reality.

expensive charges, James finished making all the covered stairs to secure them in their packed-up positions, standard the structure even more with 1-by-6 oak cedar ties on every other stair, and covered the old 1-by-6 oak steps with 1-by-6 oak plywood for earthquake seismicity repair.

The repairs to the roof allowed James to address a design concern that had been nagging at him. "Originally, the profile of the house included two gables, one facing the front and one facing to the side in an L-shape," he says. "But it always looked lopsided to me." He designed a central door would extend the side gable past the center gable to the other side of the house. In addition, had an arched as well as practical purpose: It provided an awkward side view of the house, in which the roof and wall looked strangely off and white, and it provided additional storage space under the peak. "It gives a more personal look as if it could have been there this way," says James.

The couple put a lot of sweat equity into this conversion and made good use of their construction knowledge (both James and Cheryl's grew up with parents who did a lot of home improve-

ment). But they're not experts in the construction business to help out with complex or dangerous work. Because he was on a tight budget, James followed their work closely, and whenever they got to a part of the job he could do himself, he jumped in to save on time and labor costs. "A lot of the work, even the stuff you talk about, is just labor, not the kind of thing you need professional training for," says James. "For instance, when the electrician was here I pulled most of the wires and organized out the wall boxes," says James. "While I did that, I let him work on the panel box, which I would never touch. He walked behind me and supervised my work."

"There's a lot you can do if you're not afraid. I have a friend who does a lot of plumbing, but I felt good enough about my skills to do most of the work myself."

In all, James and Cheryl spent five years renovating the house and another five enjoying the fruits of their labor-love style. "It's a great party house," says Cheryl, "because with all the open space,



people can flow from the kitchen to the food in the dining room to the back porch." Along the way, they bought some land nearby. With his hard-earned understanding of the crafts of the construction who realize his vision, James decided to design an experimental house from scratch.

"But this time, I let someone do most of the building," he says. "I got to do the painting and the wiring." ■

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A breathless realization: This was the remarkable promise of housewrap when it appeared on the market 25 years ago as a product that could help homeowners live at leisure and maximize damage. Compared to the black tar paper and plastic paper that carpenters had been using to protect buildings from wind-driven rain that might get past the siding, this lightweight plastic sheathing was a breeze to install. Because it came in rolls as wide as 30 feet, builders could staple it on quickly to create a tidy, whole-house jacket. It contained this little in cold weather, was virtually impenetrable to rain, and had the ability to let water vapor escape the building while blocking wind and rain.

Housewrap was a big hit in those energy-conscious days. At less than \$600 for a 2,500-square-foot house, it seemed like cheap insurance against later problems. Backed by huge marketing budgets and the de facto billboards around every time it was up, sales soared. Housewrap went from being a brand name, with a capital H and W, to an entire product category. Today, more than a dozen brands center about 30 percent of all new houses, says Thomas M. Koenig of the National Association of Home Builders Research Center, with the other 70 percent using tar paper, plastic paper, or working at all. Many home buyers look for housewrap as a sign of a careful builder who is up on the latest technology.

But to suggest housewrap is foolproof for getting buildings against two important issues. First, the products differ significantly and some actually don't perform as well as tar paper. Second, without proper installation, the wraps offer no added protection from the weather and could trap moisture against the sheathing.

The Barrier Method

With housewrap, proper installation is the key to keeping out the weather

source: The Old House contractor Tom takes pride and applies housewrap into all windows and doors, ensuring the perfect seal and water from reaching the framing.



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JUST ONE WORD

Plastics. More than a dozen manufacturers took the service given to *Resin* magazine in *The Products* and turned a variety of perfluorinated into their own versions of house-wrap. Some are perfluorinated Araminc (A) is woven polypropylene. Typar (B) is a spun-bonded polypropylene. Perfo-Vinyl (C) is cross-laminated polyethylenes. Barriacide (D) is woven polyethylene. Others have no perforations but still allow air and humidity to move through. Tyvek (E) is spun-bonded polyethylene, and A-Vinyl (F) is fiber-reinforced polyethylene. Still, though, some builders prefer the old standards for their projects: tar paper (G) and rosin paper (H).

How well a house-wrap does its job isn't easy to determine because there is no industry-wide definition for what house-wrap is supposed to do. Some manufacturers call their products "weather-resistant barriers," meaning they block drafts, others call "weather-resistant barriers," which are supposed to stop both air and water. The biggest difference between the wraps, though, is how they're made. Some have microscopic pores, others are peppered with visible holes, much like those in my fish bags for vegetables and breads. Both are designed to allow the escape of any water vapor and therefore prevent condensation on the sheathing.

Manufacturers typically supply one data for features such as air infiltration, moisture permeability, and resistance to tearing and abrasion ratings (which can damage house-wrap before the siding goes on). But there are at least three scoring methods for air permeation and three for water penetration, so there is no way to make useful comparisons between housewraps. "If a product doesn't give one standard, they can neither one to make a look better," says Mark Olson, a sales representative for Kwik-Wrap Industries, which markets Kwik-Wrap. Makes with more than one kind of wrap don't always stick to the same test for all their products.

The lack of any good way to compare housewraps prompted Paul Furrer, a professor in the Building Materials and Wood Technology Program at the University of Massachusetts at Amherst, to conduct his own tests several years ago. To find out how well six types of house-wrap and 15-pound tar paper (builder's fully sealed water penetration, he taped each material over one end of a 19-inch diameter PVC pipe and poured in 15 inches of water, which simulated the effects of a 75 mph gale-force wind. In a two-hour test, water never leaked through the two non-perforated housewraps that are on the market, Kwik-Wrap and Tyvek Home-Wrap (the increase to the original House-Wrap). An average of 30 percent of the water got past the tar paper. But all of the water drained through the Kwik perfluorinated wrap—Aracowrap, Perfo-wrap, and Barriacide, and Typar—or 15 minutes in a hour. The results showed Furrer: "If you pour water on a product and a dozen rights through, why would you use that?" he asks.



Manufacturers with only perforated wraps claim that products, which are, after all, only intended to provide extra protection beyond the siding and sheathing. Gary Schmitt, national sales and marketing manager for performance-savings films at Van Lee Plastics, which makes housewraps sold by Rulon, Weyerhaeuser, and Johns-Manville, questions Furrer's method. "It's not the way the product was designed to perform. It's a secondary barrier, not a good line," he says. Olson adds that if water does get through house-wrap, a perforated product allows the water to dry faster than those that let only water vapor pass through.

The crux of this debate may lie in the positions taken by Araminc and Simplex Products, the two companies that sell both perforated and nonperforated wraps. Kevin Cullen, sales manager for Araminc, and Dave Horn, Northeast sales representative for Simplex Products, both say their nonperforated wraps do a better job of keeping out water than their perforated products, but cost more. The perforated housewraps are those for customers who walk into a lumberyard and demand "the cheapest stuff you've got," Horn says. (For the wrapage house, the savings may run just \$50.)

And then the question of which product works best, the

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ed by tape with housewrap is how to install it properly. Even the most careful builders with the best products at hand have been left in the dark. Tom Silva, the contractor for *The Old House*, admits to being confused when he started using housewrap since it appeared on the market in 1982. The confusion told him to wrap the entire house, tape all the seams, then cut Xs through the window and door openings and fold the excess paper back into the openings. The confusing part was how to seal that with his father's advice: to pin strips of his paper called splices behind all trim, including window and door openings. Tom decided to put the housewrap on, tape the seams as the manufacturer recommended, then keep building as he always had, with the splices on top of the housewrap and with normal flashing over the tops of windows. "I've never relied on housewrap to keep the water out," Tom says. On projects near the coast, where wind-driven rain is an especially big problem, Tom seals the top of the flashing above each window and door opening with a self-stick asphalt membrane to any water running down the housewrap flows over the flashing (instead of behind it) and into the structure of the house.

There's another slightly different approach—Can a housewrap film in the wrap four or five inches above and as wide as each opening, tack in a strip of his paper so that it covers the flashing, and seal the strip with housewrap tape. On his own house, however, Flinn used 15-pound tar paper instead of housewrap, even though it rated lower for water resistance and, since it's not as wide, requires more seams that can leak out.

With a few more, Tom agrees that housewrap won't allow water into the wall. 1. Seal seams with tape supplied by the manufacturer. 2. Jolt the X through window and door openings. 3. Fold the paper into the hole and staple it against the interior. 4. Install tar paper splices around each opening.

But he figures the highly referenced advantage of housewrap as an air barrier is not as significant as it might seem. "With modern homes sheathed in plywood or oriented

THE FUTURE OF HOUSEWRAP

Even the best performing housewraps may have an Achilles heel: Air. Jeff Lefkowitz, an authority on structural moisture problems at Building Science Corp. in Westford, Massachusetts, has investigated hundreds of homesnagged houses that had significant rot. Based on studies he's conducted, he believes the water repellency of perforated and nonperforated housewraps is grossly overstated by marketing, especially chemicals that sweep out of vents and released siding or are sprayed on the house during pressure washing with soap and water.

Backstopping the siding can help contain surfactants in the wind, but Lefkowitz also suggests making an air space between the siding and housewrap to help the wind dry quickly. He recommends cutting strips of Cedar Breather, which mesh with for laying under wood shingle roofs, and tacking them near the housewrap at the studs, then sealing up the siding. Some manufacturers acknowledge the problem, which, they point out, can also affect tar paper sheetrock. They've developed a new generation of textured products designed to create a similar gap.

around house, or into an internal cavity, he says. And, although tar paper does not create water penetration as much as unperforated housewraps do, Flinn says that as tar paper becomes soaked, it changes in ways that help protect walls. It expands, sealing nail holes. And it becomes more permeable to water vapor, giving wood behind the paper a better chance of drying out.

Tom Silva isn't using housewrap as much as he used to. He's confident that the precautions he takes to ensure water won't get past siding—including steel painted clapboards and back coated trim-to-siding joints—plus let out of a loosed-in-place insulation that virtually blocks air movement, make wrapping the house unnecessary to meet new construction. He just uses tar paper around the trim and sometimes uses paper or 15-pound felt paper in place of housewrap. But when remodeling an old house with drafty board sheathing, Tom says housewrap is a sensible way to block air infiltration. And he knows housewrap can work well because, in the course of remodeling, he has opened up walls that he sealed in the 1980s with nonperforated housewrap and found that the wood inside has been free of rot and insect damage. The key, he says, is not to construct the exterior in make-up for sloppy building. "I never stopped doing any of the other things I've always done to keep water out," he says. "It's the guys who skip these and count on the housewrap to do everything who go wrong." ■

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TALKING SHOP

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P

removing double sheetrock is a job that's often underestimated. It may be a contractor's way to get off work, but it's usually not the most efficient way to tear it down. Experienced contractors know that ripping sheetrock is the destructive phase of a remodeling project only in the right way. "Don't just do it," says The CM House contractor Tim Wiles. "Otherwise, you might break a wall or pop, take out critical structural members, or mess electric and plumbing."

Tim's approach is more akin to Sherlock Holmes than a king kong. "You've got to find signs and where's above, below, and around your demolition area," he says. His demolition is low-key to the house. (continued on p. 62)



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BY JORDAN REED

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TALKING SHOP

"Demolition may sound like fun, but it's hard, dirty work. Ear, mouth, and eye protection are a must. A hard hat's a good idea, too."

—Tom Ichniowski

Tom Ichniowski, 40, is the jack-of-all-demolition. Filled with the appropriate bladders, it will accept ductwork, pipes, pipes, bobs, drywall, plywood, studs, beams, and nails with equal aplomb. This variable-speed model runs at up to 2,000 strokes per minute. The 12-inch carbide chip inside mounted on this 4,500-psi motor can handle even the toughest of materials in one swift pass. By accident, this skilled demolitioner, such as a large pipe, can go the complete way back, and small, precise blades for investigating what's under walls.

Peeling walls from studs and beams makes good sense to anyone who knows how to use a tool. An 18-inch-long 1/2-inch-thick blade on the right of hand-to-hand demolition, either to pull them out or tear them off. But a 1/2-inch blade (left) gets a job with curved, curved lines and knots of wood.

A reciprocating saw (top) is the jack-of-all-demolition. Filled with the appropriate bladders, it will accept ductwork, pipes, pipes, bobs, drywall, plywood, studs, beams, and nails with equal aplomb. This variable-speed model runs at up to 2,000 strokes per minute. The 12-inch carbide chip inside mounted on this 4,500-psi motor can handle even the toughest of materials in one swift pass. By accident, this skilled demolitioner, such as a large pipe, can go the complete way back, and small, precise blades for investigating what's under walls.

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TALKING SHOP



Tom Silver doesn't need a mechanical device to find franking. "My stud finder is my electric ketchup," he says, referring to how he taps on walls and listens for a clanging pitch. Those without such a deeply tested sense can locate studs electronically—an wall-mounted probe and not electrical wires—even when they are buried beneath as much as 13 inches of drywall and plywood.

What Lies Beneath

ROOFWORK

Checks for verticality between studs and detect as through top outside plates.

WASTE PIPE

Tests waste pipe run between studs and around or through top and side plates.

STUDS

WALL BOARD

WALL FIXTURES
Mirrors and ceiling registers, picture rails, curtains, and other fixtures that are located.

SOLE PLATE

"Attack a wall gently so you can see what's inside. Looking into each cavity will tell you something."

—TOM SILVER

"Just because you can't see it," says Tom Silver, "doesn't mean it's not there." Outlets, light switches, doors, and registers are obvious external signs of what's under the surface, but they don't tell the whole story. Wiring and pipes headed in other rooms may snake through the studs, while ductwork will run between them. But even prior the Tom can still encounter the unexpected. "There's always a surprise when you get into a wall," he says. "You just have to plan on the worst and hope for the best."

TO STUDS
Structural and other walls are strong vertically or horizontally through studs as well as alongside them.

studs, neighboring rooms, and even the attic, as he hunts for evidence of ductwork, wiring, or plumbing. He also looks for any clues, such as support beams, that tell him he's dealing with a load-bearing wall, then hunters cut a series of perches to pin point any obstacles within. (For "What Lies Beneath," below.)

Once he has a clear picture of what's in the wall, the drywall or plaster can begin to come off. But if he's just making an opening for a doorway through a plaster wall, he first screens it with strapping to the lath around the area he's cutting out. The strapping keeps the vibrations made by his excavating saw from crumbling the plaster beyond. And whenever he's cutting into a ceiling, he takes a moment to hold the sawed-off piece in place for pipes, plaster, and other debris (left from a past renovation, perhaps) tumble out on his head before he can step aside.

Yet for as long as he's been knocking things down, no bored crew ever has ever fallen out of a wall or ceiling, "just some old ductwork hanging, dips, bath toys, and newspapers," he says. "Nothing I could take on *Amateur Roadshow* or buy a new boat with."



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Facing Facts

All it takes is time and creativity to get a look is one-for-all of a new kitchen.

BY JOHN RINA

A

After living in the same house in Wilkes, Massachusetts, for nearly 25 years, Jan and Susan Sabel were finally ready to part ways—with their old kitchen. “The kitchen just couldn’t handle any more,” says Susan. “The drawers didn’t work too well, and the laminate countertop had a burn hole in it,” says Jan. “We liked the layout, but the room needed some serious sprucing up.” They came up with a delightful vision of what the room could be, with new cabinets and countertops and such stylish indulgences as tile backsplashes and stainless-steel appliances. Then the remodeler handed them an estimate of more than \$40,000 to build their dream kitchen. That wasn’t the only bad news. The project would take three to four months to complete. “I thought, ‘Wow! That’s expensive,’” Jan recalls. “And to be without a kitchen for that length of time is just too disruptive.” Desperate, the Sabels began looking for other options and happened upon About Face Kitchens, a cabinet-refacing company in nearby Peabody. They were impressed with the quality of past About Face projects and happy with the quote president Ray Francisco gave them for doing the work, taking their bid would cut the overall cost of their kitchen makeover by half. “When he told us it would only take a week, we were sold,” says Jan.



PAINTING IDEAS WORK Jan and Jonathan Sabel had a new tile countertop in their Cup perit. Texas kitchen, so replacing the cabinets didn’t make sense. They tried painting the old woodwork white, but the finish cracked. So they replaced the frames with maple veneer. “It really brightened things up,” says Jonathan.

PHOTOGRAPH BY ERIC REINHOLD

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For the Galia refacing job, Larry Redington, of Atlantic Junction Group Inc., sands down the face frames (1) to flatten the joint. He applies contact cement to both the frame and veneer strip (2) then presses the strip onto the joint. Within two pieces of veneer across a seam, he overlaps them and cuts the joint too strongly with a sharp utility knife. After peeling away the excess (3) he's left with a perfectly smooth seam.



Refacing works on the principle that beauty is only skin deep, and a new skin of wood or plastic put to it is as thick as all it takes to cover a ugly-bulging kitchen into a gem.

So rather than gas through the messy process of tearing out and replacing wood cabinets and the considerable expense of installing new ones, refacing contractors replace only the old doors and drawer fronts. They leave the existing face frames and end panels in place and cover them with a matching wood or plastic veneer. Improvements such as new drawer slides and handles complete the transformation, which typically costs between \$4,000 and \$5,000.

The Sabels selected their new cabinet face from a array of choices ranging from painted Veneer to handboard to steel. Euro style cabinets, from built-in style to solid thermofused (RTF), a tough plastic coating that looks like paint but is actually molded over fibreglass. "Probably eighty-five percent of our jobs are wood," says Jack Lull of New Concept Kitchens Inc., in Des Moines, Okla., maple and cherry are most popular among his customers, followed by lacquer and walnut. The second most on a door and drawer order is about as weird.

A top quality refacing job begins with good surface preparation. Lull first refines any loose sides and cuts. On cabinets with old paint or varnish finishes, he'll sand it away, apply a liquid deglazing agent, or scrape the finish off completely. This ensures a solid bond between the old surface and the veneer.

Finally, he fills any cracks and imperfections in the surface with wood putty and sands it smooth.

Some contractors use magnets with a pressure-sensing software backing, but Lull says contact cement applied on its own provides a superior, more instant cosmetic bond. Large surfaces such as cabinet ends or appliance enclosures are usually covered with a finish grade Birch oak veneer, held in place with contact and sometimes small finish nails. Doors and drawer fronts usually arrive from the manufacturer with several coats of catalyzed lacquer, a durable, low-maintenance finish. Lull sprays the same finish onto the wood veneers but not before carefully making it on scrap pieces to make sure the match is identical.

Not all cabinet refacing contractors work to the same standards. Clients of refiners and respect master jobs. And after the work is done, you should get a written warranty, one that protects you from defects in materials and workmanship for at least five years.

Not all cabinets are good candidates for refacing either. Those made of solid wood or plywood can be refaced, but glued wood's failure to particulate. "The older the cabinets, the better," says Patience. "If they were made before the early seventies, when cabinets were built with solid wood face

frames, I can almost guarantee they're going to be worth refacing. None of the stock cabinets you find at big box stores aren't really as well-made and should be replaced."

And, of course, refacing only makes sense if the kitchen has a good basic layout or the existing cabinets can be reconfigured to a new pattern that will work better. "You have to have a decent setup to begin with," says Sabel. In other design areas, Patience of Patience Design: Refacing does allow for some modifications, such as swapping the locations of a cabinet and a dishwasher, or adding another bank of drawers, but if the workflow is inefficient or the layout requires major changes, an overhaul—not a refacing—may be required.

Fortunately, Jim and Susan Wile's old, unappealing cabinets were solidly built on a metal framework. The vanity was coated with cherry veneer and spray finished them to match the solid cherry panel doors they had chosen. With new brass hardware installed, the cabinets' enclosures from 1960s style to Colonial was complete. Three years later, they're still kind of there, new-old cabinets with the refacing. "With the money we saved, we were able to get a great countertop. And we even took a great vacation!" says Jim. ■



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LETTER FROM THIS OLD HOUSE

Making Connections

BY RICHARD TRETHEWEY

There's a permanent ringing in my ears, and it's not because Tom Selva turned a round too quickly with a 2x4 on his shoulder. It's the cry of my cell phone, a friend that's become as essential to my work as a wrench once was. I have not come as the plumbing and heating consultant on *This Old House*, but I will carry on with my own local consulting business, which takes up the majority of my time and energy. In this digital age, the location of my office is set by the mobile signal.

The town's central office usually conjures up an image of an executive tapping away at 32,000 feet. But contractors are truly in an excellent position to take advantage of remote access. We're out and about all day, and it's easier to get a call and deal with it right away than to return to the office and find 39 pink message slips waiting. I am now accessible 24/7, and I find that to be both a curse and a blessing.

The moment I power up my portable phone determines when my day begins. From that point on, I'm fighting against the tide. A call comes in, I answer it, and while I'm on someone else leaves a message for me. I go to return that message and another drops into my voice mail. It's not merely a matter of playing on-the-road secretary, unless, the dynamics between me and the client change because I'm supposed to be so reachable. It's a little like dating with your mother: if you don't call someone back within an hour, they think you don't love them.

But then, every ring represents an opportunity—a new client, another job, better connection. I've never been shy about giving out my number, because if clients can find me, then I can address their concerns and reply their fears more quickly. And anyone who can be reached in this maddening, make-nothing-world we live in will get more business. There are those who gradually give up a cell phone, but I see myself as the latter having one several numbers.

My communications arsenal is slowly down to just a cell phone, Palm V, and digital camera. The clam pocket phone replaces me in the car, a laptop, and most times the one back at my temporary office. The Palm takes over for any organizational tool I might need—address book, calendar, and map—and even allows me to take notes and draw sketches on-site without pen, paper, or laptop. The digital camera enables me to document jobs, then e-mail photos of my progress to clients or the location to suppliers.

The bonus I get with all this technology is access to new ideas and an ability to accomplish my daily tasks. I can be more productive and use my time to discover better ways to do things. And I will—just as soon as I answer a few calls.

Richard Trethewey, *This Old House* plumbing and heating consultant, keeps in touch with clients while on the road.



PHOTOGRAPH BY PASCAL BLANCON

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- Cabinets and Woodwork
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- Electrical Upgrades

Encompassed by a five-story web of steel scaffolding, the 100 N. popperhouse in Charlestown, Mass., is on its way to a much-needed facelift. The plans for the house will be more modern, a new roof, and a roof deck, as well as new water between the tracks



Check out
www.itsidehouse.org
for a closer look at the Charlestown project, including photos, floor plans, 3D floor walk-through, and a virtual tour with a 360-degree view of each room.

FALL TV PROJECT/CHARLESTOWN



Mapping out plans to turn one Second Empire row house into two duplex apartments

A HOUSE DIVIDED

BY JEFFERSON KOLLE

Above the scenes of this Old House's Charlestown project, is the scene that someday will become the nursery, where Dan Albright sat at a table in front of his laptop computer. On the screen are images of the floor plans of the house, drawing project manager John Albright, an architect with Medford's French Architects. "This is amazing stuff," Dan says. "John sends me his drawings on an e-mail. I load them onto my AutoCAD program, and I can play around with the design." He clicks on the plan of the nursery, and suddenly there is the layout full screen.

Dan is not your average T.O.H. homeowner. Through his company, Back Bay Design Concepts, he has renovated studios in Boston and designed midtown kitchens, bathrooms, and roof decks at the surrounding area. And he's comfortable manipulating drawings electronically. Aided by his computer program, he can move a wall, change the shape of a kitchen island, or slide a bathroom from one side of the house to another. "I'm using an enormous AutoCAD disc," he explains. "When Dan has an idea he thinks is good, he e-mails Albright, who then relays the plan."

So it is at the start of any project. Scaffolding, as always, is back and forth, plans get revised, and dreams begin to take shape, and inspiring, as those dreams collide with the cold reality of space, budget, and time limitations. But the planning phase is as necessary to a restoration as it is to a new or well-situated territory.

The layout of the upstairs and downstairs kitchens are still up in the air, as Dan has been fusing with them—though not on a computer screen. In the upstairs kitchen, which will serve the apartment where Dan and his wife, Heather, will live, his designs have been going forward on the kitchen floor to determine layout, as he's not, and the possible location of the refrigerator. The old idea will be replaced, but for the time being, Dan is using them as a full-scale model to get an idea of how things will fit and how the spaces work together.

Albright is at the house today to double-check some measurements and has brought over the paper plans, which include some new ideas for the upstairs kitchen layout. He and Dan spread out the rolled sheets on the upstairs dining room floor. The version has a tiny but workable half-bath tucked under the stairs, so that the kitchen can expand into the old bath, now located at the end of the road. The island has a new shape too. "I like this," Dan says, pointing to its curved outline. "I like how it's long and short." Dan and Heather are planning to start a family in the house, so child-safe details are a top priority. "The curved island will also make it easier for people to negotiate the room," Albright says.

The phone rings. It's a kitchen appliance supplier calling back with answers to some of the hundreds of questions Dan is asking these days. He wanders back to his makeshift office, cradles phone wedged between neck and shoulder, and discusses details with his sales. Albright heads for the third floor to be more

Garden Level

The most ambitious transformation in Gladstone takes place in the basement, formerly a dark, cloying room with stone walls and a dirt concrete floor. "We don't have a lot of room to expand because of the house's location on the lot," says TGA's contractor Tim Sileo. "What's unusual is that there isn't a 90-degree angle in the whole building—that presents a challenge in putting up new walls." This level, part of the downstairs apartment, gains two large bedrooms, a full bath, space for a mother-and-son den, and a storage room. A new staircase under the main deck connects the apartment's two floors. The bathroom's built-in sets of storage space lie to the back of the house, reached through an outside door.

BEFORE

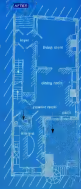


AFTER



First Floor

While much of the first floor remains the same, there are separate entrances for the friends and house-come. The entryway steps where it is, but in the foyer a new set of double doors leads to Dan and Heather's apartment. And the old back door has moved so that the downstairs tenants can enter their apartment through the foyer. A new powder room is tucked into a corner formerly occupied by a built-in closet, expanding the space for the kitchen in the aft. From there, a brick stairway leads to a surface patio. "Giving the tenants' apartment two doors—essentially doubling the square footage—wasn't providing an outdoor area separates the door table, and the rest of the unit," says TGA's lead driver Thomas. "Here's the real story of this renovation: maximum return on the Bellevue investment."



BEFORE Tim Sileo, during the construction phase of construction, puts inside out of the building, the plans call for this one to become a double patio that the tenants will enjoy from the first floor kitchen. Sileo, before turning a new concrete slab in the basement, a mother-in-law's 2-inch layer of drainage and that Dan Bellevue had done the other concrete to set more rapidly. Tim and Dan have already replaced three large brick columns with steel posts close enough to be hidden inside the kitchen walls.

PHOTOGRAPH BY JAMES HARRIS



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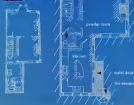
BEFORE The narrow bathroom between the second-floor bedrooms on the second floor made entry for remodeling to make room for a larger, more modern entry area, complete with curved island and all new cabinets and appliances. (L) At the head of the stairs on the third floor a window looks out onto the roof of the old kitchen. (R) At the head of the stairs on the third floor a window looks out onto the roof of the old kitchen. (R) At the head of the stairs on the third floor a window looks out onto the roof of the old kitchen.

Second Floor

The biggest change to the second floor—which encompasses the public areas of the Baltimore rowtown—takes place in the old. The kitchen gets an overhaul to replace outdated appliances and worn Brooks tiles. By eliminating the built-in kitchen and bathroom, the space was opened to build a new kitchen, a bank of cabinets, and a central desk off the side of the house. To compensate for the lost bath, a powder room is tucked into a space at the head of the stairs. The two main rooms on the second floor, a formal parlor and dining area, remain intact—minus a few additions and old fixtures.

"It's the renovation's dream," says Stone. "A house with historical interest, in good shape structurally, that just needs new systems and new kitchen. And there's only one place a kitchen can go, so you don't even feel about such decisions. It's an ideal situation."

BEFORE



Third Floor

The only addition to the house occurs on the top floor: A full bath, with separate shower and tub, and a space for the washer and dryer extends over a roof of the old kitchen. "We going to be a task to make the new floor level over the ground roof as the old owner 'let' really have some profit," says Tom. Highlights will be the bathroom, the bath and shower, but for a trip to the roof outdoors. The Baltimore can think their special addition to a new section deck. Its ceiling beams are in the same spot as the old stairs to the roof deck, but by moving the chimney from the chimney to the roof, the built-in bathroom was dramatic. The old deck entrance becomes the drop to the closet for the entry, which is separated from the master bedroom by new partial deck.

AFTER



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Courting the Contractor

BY ANNE KREMER

A good one is hard to find. How to attract a busy builder's interest and complete your project on time and on budget

They had a 1980s farmhouse in Pile Alto, Calif., the vision for a redesign, and the money to renovate. What Susan and Vince Giovannone didn't have was a good contractor. Their top choices were booked solid for months. "After lots of begging, we finally found someone to do a room at a time on weekends," Susan says. "It simply isn't realistic to do a complete remodel in this town. Right now we just want to get the bathroom and kitchen finished so we can actually move in!"

Welcome to renovation in the new millennium. In many parts of the country, the high-flying economy has forced a bidding and remodeling boom that's given quality contractors more work than they can possibly take on. Homeowners today not only need to be savvy about bids, contracts, change orders, and punch lists, but they inevitably have to sell their projects to a busy contractor. "It's a lot like dating," says The Old House housing and plumbing contractor Richard Truherwey. "You want the contractor to notice you, but you don't want to be too pushy. You hope he likes you and you like him."

A LITTLE ROMANCE

So, how do you woo a contractor when you're one of dozens trying to even get a date? Not everyone has the flexibility to renovate one weekend at a time like the Giovannones, but there are other ways to make yourself and your project desirable.

The Old House contractor Tom Silva puts it plainly: "I'm looking for the client who wants to get the job done right and who is willing to pay a little bit extra to do it that way. No slumping. You're from now I want somebody to look at the place and say, 'Gee, who did all the great work on the house?'"

That doesn't always mean that the biggest remodel with the biggest budget wins the day, however. "Jobs with firm limits on the scope of the work are the easiest to schedule and the most fun to do," says T.O.H. host

Know.



Know where to get the train to Shanghai*

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Know the sound of your baby's laughter

Know you can read and respond to e-mail from HongKong*

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"Hire an established contractor who's managed a company through boom and bust. He won't be struggling to keep good help on the job, and he'll take care of his clients."

—BOB THOMAS

Steve Thomas: That means you have a clear plan, preferably as large as you can, and a budget that fits it. When you call contractors, emphasize that you've done your homework and that you're ready to spend over spec sheets for the entire project. But acknowledge that you understand that the contractor's popularity means you may have to wait.

And put it to homeowners more reliable contractors, so you do contractors who have clients who will be easy to work with. "We always make room for former clients—it doesn't matter how big or small their projects are," says Seattle contractor Link Tash. "Our business runs completely on word of mouth and it's our best argument to take care of loyal customers." If

you're doing your first renovation in the area, say contractors, friends, and neighborhood contractors leads. "The much more likely to work for a friend of a good previous customer than for a stranger," says contractor Dan Moore, of San Francisco, Calif.

Another way to a trust contractor is to have a reputable architect on the job. Say architect Jens Gustafson Matheson, of Asheville, N.C., "Architects have relationships with contractors. You may still have to wait until the contractors are available, but it's a starting point."

And, once there's a starting point, think about how you present yourself. When you finally get a contractor on the phone, don't tell him your renovation history. Get contractors are passionate about their work and want their clients to be excited about the project, too. Run it down to the homeowners who want to get involved. "I love the guy who hangs around asking questions. I tell him, 'Go ahead, pull up a lawn chair and watch.' It shows he cares."

Finally, appeal to the contractor's checklist and his ego. "The way I handle it is to tell the tradesman, 'You give me the bill, and I will give you a check. This way you'll be paid on time,' says Dave. It may also work to appeal to a contractor's vanity if you have any media connections. "Some builders and architects are really into getting publicity," says Link Tash. "It's not, but it's fun to get your project into a magazine."

MATCH-MAKING 101

Although it may feel like winning the lottery when a contractor finally calls back, the homeowner still needs to be choosy. So just to put you on a date with someone from the Yellow Pages, you shouldn't hire a contractor without checking him out. "Somebody is going to come and destroy and then rebuild your home and you're going to give him lots of money to do it," says Moore. "You'd better know really well who the person is."

In these tight times, some subcontractors are juggling too many jobs or cutting corners, says P.O.H. master carpenter Norm Adams. "The key is to hire an established contractor who's managed a company through boom and bust," says Adams. "He's more likely to have long-term

RENOVATION PLANNER

There is no one-size-fits-all schedule for renovation projects, but here's a rough time line for a medium-sized job—such as a kitchen renovation—making sure you have your contractor on time.

1 TO 2 MONTHS BEFORE DESIRED START

- Begin researching what you'll do and accounting for your needs. Develop a list. Look at magazines, other homes, showrooms, etc.

1 TO 12 MONTHS

- Figure out a budget. Talk about loans.
- Ask friends, neighbors, family for recommendations, designers, contractors.

6 TO 8 MONTHS

- Interview architects or designers, call him.
- Start to narrow budget and idea list.

4 TO 6 MONTHS

- Finish plan down to a flat-out spec sheet.
- Review drawings make revisions.
- Interview contractors also view schematics.
- Check contractor references, visit work they've done. Their style is also and cost to you.
- You or architect hire for any required services from planning, zoning, or historic commissions.

2 TO 4 MONTHS

- Interview contractors.

1 TO 2 MONTHS

- Select competitive bids or negotiate with one selected contractor.
- Decide on start date—finish date.
- Choose contractor.
- Review contract with attorney and sign.

1 MONTH

- Make sure contractor secures building permits.
- Make appliance, cabinet, window selections.

employees in he won't be struggling to keep good help on the job. And since he's been around awhile, he understands the importance of making sure of his clients."

When you get together with the contractor, the goal isn't just to tell him about your project, but to make sure you understand him. "Sometimes there's chemistry and sometimes there's not," says Tash. "You'll know pretty quickly if you're going to want to spend any time with this person." Make sure that all homeowners who are going to be involved in the renovation are at the first meeting. In particular, families should emphasize that they are active participants in the decision-making process, so they don't get treated like "the little women" who aren't really involved in the decision-making process, says contractor David Moore, of San Carlos.

Like most things in life, it's important to trust your instincts. Jack and Janet Neely, of Knoxville, got a funny feeling about two guys their contractor was on to build the addition to their 1980s Cape. "They were nice and casual," like Laurel and Hardy," Jack recalls, "but we didn't think their appearance was a reason to trust them." The builders ripped open an old oil tank and drained the toxic contents into the Neelys' backyard, and later left the job without finishing it.

Even if it's late in the night with your contractor, he was warned by a solid answer, always call other references. Find out the story, says Tash. "Did he show up when he was supposed to? Did he do things?" There are changes on every job, he says, but contractors deal with them very differently. "Some say, 'We don't make changes until the end' and their hope is that you won't want to make them by the time it's all done. They're working on a really tight schedule, and they're interested in getting on and getting out," he says.

Go through a background check on you, says Tash. Was a project that the homeowners have been living in for a couple of years and find out if they're still happy with the work. Ask how many projects the contractor handled at one time. "It's not a fun feeling out too late that you're low priority and the guy is juggling a lot of jobs," says homeowner and veteran contractor Cindy Stock.

Kate, of Mirano Park, Calif. "You need to know what other work he's doing and what he's doing. What he's doing is to have access to the appropriate subcontractors to do your job when it's time."

THE PRE-NUPRIAL AGREEMENT

As some govt is very relationship, it's not to talk about money and contractors. In a renovation, that means bids and contracts.



"If a roof is spec'd as 'shingle roof' that's not enough. It should say '20-year fiberglass shingles, 3-tab, at \$21 a square.'"

—STEVE THOMAS

moreover that if you come to under the cap, the homeowners and contractor split the difference."


With either type of agreement, the contractor will add his markup, which is usually 20 to 25 percent, says Tash. "It's not the best proceeding, great service. For the organization of solving problems, managing the risks, getting moving parts, cutting here and there, our profit, the whole thing." The markup also shows a contractor's overhead, whether it's the maintenance on his truck or his tools, or workman's comp for his employees. Says Norm Adams: "To enter a fixed-price bid on a job is time and materials because you should see that you're paying X amount for materials plus markup and X amount for labor plus markup. It should be a mystery."

Regardless of which route you go, you'll have a more realistic idea of costs if you specify everything possible ahead of time, says Steve Thomas. A bid for a typical kitchen remodel, he says, should indicate the type of flooring, cabinetry, lights, lighting, backdrops, and so forth. "And if a roof is spec'd as 'shingle roof' that's not enough," says Steve.

It should say "20-year fiberglass shingles, 3-tab, at \$21 a square." That way the homeowners want to upgrade to a scheduled 25-year shingle, they know what the cost difference is."

The more specific your plans and scope of work, the





Calvin Ng. Inventor.



Calvin's never used a digital camera before.
Now, he's inventing extraordinary things with it.
Paced with new technology, we're all beginners anyway.
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"The architect, the owner, the contractor all have pictures in their minds' eye. And each one could be seeing something different."

—RICHARD FORTMEYER

more you'll be comparing apples to apples when it comes to assessing different hard-poor bids. "When needs are clear but your bids are still far apart, you may have someone who has very little overhead competing with someone with a lot of overhead," says contractor Roger Foggia, of Portland, Oregon. "You can say, 'I'll take the lowest bid,' but then something will come up and you can't match anybody in the office. Well, that guy's not working for them; he doesn't have a staff."

"Most failures and mistakes are honest, but the low bid sometimes ends up being the high bid because the contractor is hoping you'll make a lot of expensive change orders," says Scott. "There are also guys out there who are bidding low to get the job."

and will do the cheapest work they can do, then the low-bid job stays low but it's a low-quality job. Going with a higher bid might cause you less aggravation in the long run." In an era when contractors are very hard on the low bid is especially serious, says Richard Trethewey, the pit boss.

Although the contract and bid paperwork can be intimidating, homeowners need to understand the process. "We go in and show our potential clients an old contract, and we review personal change orders," says Charles Engelbrecht. "We explain the billing system and how the process works and how it adds back to the scope of work." Engelbrecht's contract also promises that he'll provide a line item—each project's homeowners from his job should be defined as payment to a supplier or a subcontractor who works for him. "That's a good business practice," says Niren. "You don't want anyone putting a lien on your house because a contractor didn't pay for materials or labor."

It's the homeowner's responsibility to have an attorney check the contract before they sign. But they should understand the basic points that need to be there, including a start date, a project schedule, a meeting schedule, and how changes and unsatisfactory performance will be handled.

It should also specify a payment schedule, with no more than 30 percent as a starting fee, and typically 5 to 8 future payments tied to completion of key aspects of the job.

As for the financing or the completion of the electrical. At least 10 percent should be held until the very last details of the job (the punch list) are complete. Contractors should provide proof that they're licensed and bonded in accordance with local standards, that they have adequate liability insurance, and that employees have workers' comp. Homeowners should know the insurance company's name, the bonding company's name and local number, and the names of the subcontractors the contractor plans to use. "Just to be sure, put a provision in your contract that the contractor agrees to inform you if he changes his insurance, bonding, or workers' comp," says Niren.

6 THINGS YOUR CONTRACTOR WON'T TELL YOU

1 Your job will take longer than you think. Life is full of setbacks and interruptions. It is more for less work, your job will be delayed. This doesn't mean the contractor is a bum, says Tom Miles. It just means the homeowner and everybody involved must be flexible.

2 Contractors talk. "If you offered somebody somewhere along the line, or were a judge, believe me," says Miles, "the other guys at the backyard have heard about it. We don't share jobs a mystery information, but we're going to spread the word about this homeowner who isn't like us. So to speak."

3 Most contractors juggle jobs. "We want you to feel that you have a lot of attention," says contractor Dan Blanton. But even if a contractor would prefer to do one job at a time, that would put him at risk because if the homeowner couldn't decide, say, on what kind of bathtub to put in, the contractor's crew would be waiting. "We have another to keep you," says Miles.

4 You don't always have to pay a large up-front tender. "I charge a simple hourly rate," says Miles. "You can pay some percentage of start-up and then as my money until you see something happening. The way any job will turn out is completely different. If something comes up to be paid for at the time of completion, not to use the model that shows the house owner and purchases, that way you can be sure your money is being spent on your job, not somebody else's."

5 Top dollar doesn't always mean top work. When you're shopping for anything in a home, says Herb Adams, "you can get involved into buying at a high price. I think there are contractors out there who are overworked and who are giving really high bids with the second goal that the homeowner will hire them down," he says. "When a client who is impatient or impatient with you, the contractor's work. Here he's making a lot of money, but he's too busy and the homeowner is not getting the best value for his money."

6 A contractor's work begins in your mind. "You, it's true," says Miles. "The customer's children have an idea."

HOMEOWNERS ARE FROM VENUS, CONTRACTORS ARE FROM MARS

Like a good marriage, the success of a renovation depends on communication. Says T.G.H.'s Trethewey, "The architect, the owner, the contractor all have pictures in their minds' eye. And each one could be seeing something different." So it's important to make the homeowner's picture clear. "Make it a joint effort," says Scott. "If there is no meeting question. If you're not living at the site, drop by every day. If you don't understand something, ask. He'll show you what you want. And talk to the contractor, not his workers."

Obviously, good communication is limited by getting the crew the way you want to be treated—with respect, says Palo Alto homeowner David Mowbray Williams. "It's important to develop a rapport with those professionals, just as if they were a doctor or a dentist," he says. "They're in your house trying to make a look good and you need to be there when they're appropriate."

"Nobody is exposing Mr. Wilson and a bunch of Chalmers and the Pope," says Scott, "but you are at least able to make the job a sandwich every now and then if you're making one for yourself. It's the little things that matter. I've had guys working for me who've said that sometimes when they're working on the one that people won't be there the house." Treat the workers well and they'll appreciate, says Scott. "They won't come pouring through your walls with muddy feet."

WHEN THE HONEYMOON IS OVER

After renovation heads out the final stage, everybody will feel the stress. "So much of the energy and excitement of the job is gone by the time you get to the wallboard," says contractor Foggia. "Most people just want the job done. The result can be that every body leaves up and corners are cut." It's not of the building a half-hour and then dropping it off as a document explaining how because you're out of the end of a job," says Foggia. "I think that's why some people are disappointed at the end of a job."

"It does seem that contractors are most interested in the small structural work," says Richard Grossman, who recently renovated his hillside San Francisco home, "but what interest are and with work on the final touches—many of which never get done or don't get done without a lot of nagging."

Nagging works in some degree, but having a well-organized punch list and withholding the final payment will work better, says Tom. "But give the contractor some wiggle room," says Scott. "I know, but I want somebody. Pick up some of the small jobs yourself, like paint touch-ups. That way you can call him for another job later and he'll know you're easy to work with."

IF THE MARRIAGE CAN'T BE SAVED

David Mowbray Williams will never forget one of his final meetings with the contractor who spent a year making a mess of his 1920s Palo Alto, Calif., house. He was holding a big piece of wood and screaming at her as she stood with her back to his hip. "I should have gotten rid of him after thirty days," she says now. "I didn't get any better."

When the homeowner and contractor have irreconcilable differences, the first step is to try to talk it out. There should be a meeting. Most home is usually called something like "Work meetings and resolutions of disagreement or dispute." It is a meeting where work, doesn't get done, or doesn't get paid by the subcontractors, the homeowner can give his notice that he's in breach of contract. If the contractor doesn't fix the problem in a given time, you can try mediation or a lawsuit, although that's expensive and signals the end of a working relationship. (The state protects the contractor, too. He can stop work if he hasn't been paid on schedule or if the homeowner isn't making decisions necessary to continue work.)

When a contractor disappears at great length, a homeowner may not be stuck if the contractor was insured. When David and David Williams' relationship soured, they ended the relationship without finishing work. David got the home number from their Yellow Pages ad and located down the building company. He filed a claim and received \$10,000. "It's important to find out up front what you want their contractor's number," David points out. "Once only had \$10,000, and if another angry client got to the hard company first, we'd have been out of luck."

"There are guys out there who are bidding low to get the job and will do the cheapest work they can do."

—TOM MILES



For all the stress and strain of the two-year renovation of their Colonial in Sher Hill, N.J., Scott and Nancy Seifert are happy with the results. They found their contractor in their neighborhood, and from the start, Nancy took the reins on the project. "With me at work, she was going to be the one speaking language with the contractor," says Scott. "It was important that they get along." The project is down to the punch list: a set of French doors leads, a vanity mirror hasn't arrived yet, and a new light still needs gaps. "But we'd met the contractor again," says Scott. "He communicated with us and he saved us money." Now that's a romantic ending. ■

rural revival

A farmhouse is transformed from a raccoon-infested eyesore into a welcoming weekend retreat

BY JOHN KING

When the bad seasons came raining down, Michael Brown and Douglas Elliott noted one problem: "It was, for almost," says Brown, "the poorest of weekends that turned into these long, dark, cold, dreary days."

But we planned it to be a lot of raccoon stories and kept on going.

Great concern notwithstanding, the men went determined to transform the place into a relaxing weekend getaway. Like many Chicagoans seeking relief from the heat of the city, Michael and Doug had long enjoyed the pastoral charms of the southwestern shore of Lake Michigan, just over two hours' drive from the Loop. It was there, while visiting friends near the tiny hamlet of Benzie, that Doug first spotted the century-old farmhouse. With a minimal electrical system, no heat or plumbing, and damage from a fallen tree, the structure had stood empty for over a decade.

Yet for all its woes, the house, with its four-story facade, seemed a curious display. What's more, the six-and-a-half-acre property included a circular's corral, a two-car garage, and a nine-stall horse barn. Best of all, there was not a neighbor in sight. Intrigued, Doug reported his discovery to Michael and persuaded him to have a look. "It was a great location, and I loved the way the house was used," says Michael. But even though he had a degree in architecture, he wondered anxiously if the house could be salvaged. Once they learned the structure was stable enough to endure a renovation, the men promptly made a down payment.

Calling on his knack for organization and his ability to visualize "what might be," Michael entered the project with data as clear as what a weekend place should include—namely, an open floor plan with light, a kitchen that would make the most delicious of chef food, room for guests, and an in-ground pool.

STORY: Although it looked good bones, the farmhouse had little else the going first move. In tandem with their contractors, the owners closed the dwelling of debris and brought it back to life—adding a swimming pool just in time for summer.





LEFT To access an open plan, the owners built an angled counter that divides the great room and the dining room (right) from the kitchen (left). The range and sink sit low, one side of the counter, the fridge stands opposite the range.

After interviewing a number of general contractors and seeing examples of their work, the owners decided to hire a local design-build team: Steve Dargel and Mark Schrock of Dargel and Associates Builders Inc. "We've always been in the design of an older place," Dargel says, with the pride that comes from extensive experience. "There's just no way you can get the character of a giant old house in all new construction."

The original 18 by 25 foot, two-story portion of the house sat on a steadily constructed foundation made of rough-hewn Michigan limestone that the contractor found to be remarkably well-preserved. "Floor heave was not a problem because the foundation was below the floor line, so it was in good shape," Schrock says.

The part of the farmhouse included a small living room, kitchen, bedroom, and bath downstairs and three rooms upstairs. An air-side air-well led to the basement. In the 1930s, former owners gridded the incongruous 23-foot-square past and new wing porch at one end of the building. "It wasn't the greatest looking place," says Dargel—an understatement at best—"but it had potential."

Michael dove up a lot of plans, feedback, and gave them to Schrock to translate into a more buildable version with a computer-aided

design (CAD) program, together they refined the scheme in success. Michael's design was an ambitious one that called for a variety of major alterations. First and foremost, he wanted to gut the original living area, kitchen, and porch to create a larger, more inviting cooking space with an adjoining dining room, back with access to the great room. "The way the cook—Dargel—could talk to guests in the living or dining room and not feel separated," Michael notes. New construction would add a section of raised roof, called a "awning," or overhang over the great room, a screened porch with a fireplace at the back of the house, decks at the front and side of the house, and a screened entry. The upstairs bedroom would gain a walk-in closet and bathroom to become a master suite, new led French doors installed on one wall would look out on the great room. To extend out the project, the team hoped to convert the owner's carriage in the back yard into a guest house overlooking the owner's 10-acre wooded, a swimming pool.

During a long Labor Day weekend, the men started Dargel and Schrock, along with Schrock and Dargel, began to clear away a decade's worth of soil and debris. When they removed the drywall ending in the great room, they were not with that debris of perished rooms. Over the years, the owners had spawned many deer and mice, some of which were still alive and kicking. After combing these neighbors, the men trapped and transported them all the property. "Nag them about us to take the raccoons fifteen miles away so they wouldn't come back," says Michael. "We were obsessive."

With the heavy squatters disposed, demolition could proceed. The masonry walls and ceiling of the original farmhouse had been covered with unique and grooved paneling made from cedar and pine, rather than with plaster or, as is traditional in other parts of the



"If you take down a structural wall, you have to replace or relocate the supports."

—Tom Silva, This Old House, Minneapolis



ABOVE The chimney runs through the living room to the roofline, shoring off multiple layers of stone and brick. **LEFT** Michael Abruzzo poses on the balcony after belting in an old gate that serves as a balcony rail outside the French doors opening from the main staircase. **OPPOSITE** The multi-paned doors allow plenty of light from windows on either side of the great room's double "mainstays" to flow into the bedrooms.



century dwellings, hardwood. "That kind of wall finish wasn't typical of a true farmhouse," says Dupel. "It was more like what you'd find in a hunting lodge." Because it was in good condition, the men decided to convert the pressing into wainscoting. The contractors removed a piece by piece and re-cut it in the home here and needed.

Pulling up layers of linoleum and Masonite underlayment in the guest room revealed an unexpected bonus: pine tongue-and-groove plank flooring in superb condition. When Michael discovered this, he decided to refinish the floor rather than replace it with stone pavers as he had intended. "With an old house, you plan as best you can," notes Dupel, "but sometimes the best solution just sort of presents itself as you go along."

After the stories were gassed, subcontractors tackled the reconstruction of the mechanical systems, including the HVAC. They removed the oil-fired furnace in the basement and replaced it with a gas-fired furnace fed from a liquid propane gas tank behind the garage that powered a forced-air system; an air-conditioning condensing unit is also located outside the house. Modifications to the existing ductwork concealed neatly of extensions installed in crawl spaces under the screened porch and sunroom. New branches in the ductwork

"With an old house, you plan as best you can, but sometimes the solution presents itself as you go along."

—STEVE DUNN



run up-comes between wall studs to the second floor. Upgrading the service from 60 to 200 amps and completely rewiring the house brought the electrical system up to par. A new well, septic system, supply pipes, and drains modernized the plumbing (see "Field Trip").

The house now required only repainting of the missing mortar joints. Kachner removed the deteriorating asphalt composition roofing, revealing 1x4 board "slap sheathing" under cedar shingles. To prepare for new textured asphalt shingles, Dargel covered the joists with 1/2-inch thick oriented strand board (OSB), which provides a smooth, continuous nailing surface. Although the boards covering the missing mortar joints were undamaged, the ones at flat wall siding material that covered them were badly chipped and worn. Dargel replaced these with pre-painted cedar clapboard siding. "We considered vinyl siding, as a way to control costs,"

Michael says, "but we then thought it would be more authentic to use a period material. This house deserved real wood." Once the siding was up, the men tackled the question of color. "We first thought a light white," Michael says, "but we decided that it was too stark, even harsh. We wanted something more in keeping with nature, so we finally settled on a golden wheat tone."

Luckily, the framing of the house, in contrast to sturdy rough-cut pine, was straight and plumb, but there was no insulation to speak of. Schrock subcontracted the job to a specialist in spray-on cellulose insulation. This material is composed of 80 to 85 percent recycled newspapers that contain a non-toxic fire-retardant, usually borax chemicals (when covered with drywall, the insulation can produce fire-wall ratings of one hour). "It works great if studs are uneven or if surfaces are craggy," Schrock says. "It fills cavities completely, and it's especially good at getting behind electrical wires, hoses, and plumbing pipes." Cellulose has R ratings similar to fiberglass, although it can cost 20 percent more to install than traditional fiberglass.

With systems in order, walls tight, and windows in, the team moved on to the great room addition—and Michael's roof-raising plan. The great room had no floor joists and "a terrible roofline that didn't go with the main house at all," says Michael. To connect it to the original part of the house, he decided to open up the ceiling in the room, lift the roof, and construct a high, narrow, central section, called a monitor, that recalls the rooflines of many classic houses. "I got the idea just driving around and looking at old houses," he says. Dargel determined that adding windows on the sides of the monitor could direct lots of daylight to the room below. To create the monitor, Dargel and Schrock built two temporary walls to support the existing roof, then cut out the peak, leaving a rectangular hole 25 feet long and 8 feet wide. On either side of the hole, working up through the roof, they placed 8-foot-high girder trusses strong enough to span the length of the room without intermediate supports. They attached the eave ends of the trusses to the bottom of the beams, then framed, sheathed, and shingled the monitor roof and installed the windows.

The team was able to complete the roof raising without disturbing a stone fireplace on the end wall of the room. But, in doing so, they revealed the fireplace was in to be a field-

BELOW: Rather than build a costly new fire house, Michael Adams fixed up the monitor with a double-wide arch and a pair of firebars. The ornate hand-hung shower still is reflected in the mirror (left). On the camp front steps, Doug Elliott accepts paint off a window.



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FIELD TRIP

Times the ring holes and around much of Peoria's downtown mostly sturdy houses, the county health department estimated an aboveground septic tank had built the house.

Bill Ransberg, owner of Peoria-based Septic Tank Systems, which did the job, says septic tank capacity and size of the drain field depend on the number of bedrooms and square footage of the dwelling. This project required installation of two new 1,000-gallon septic tanks linked to each other by sewer pipe and buried about 40 feet from the house.

The first tank catches the majority of solids; excess sludge by gravity to the second for additional settling. (A two-compartment tank can also serve this purpose—see illustration). Then liquids reach the third, 600-gallon tank, an electric pump transfers them to leaching pipes in the drain field, which measures 60 by 16 feet.

To build the aboveground drain field, a bulldozer removed 1 foot of topsoil, then dump trucks hauled in 900 yards of clean #1 sand, raising it 4 feet above ground level. The sand helps disperse and filter the



liquid effluent as it is absorbed. Workers laid down a 6-inch-thick bed of 1-inch-diameter washed gravel in the drain field on top of the sand, then topped it with a connected series of 6-inch-diameter, perforated-plastic leaching tubes on 2-to-6-foot centers, which were then covered in 6 inches of washed rock. Grass disguises the result.

Drills had to be located for enough away from living areas to prevent future drainage—and preferably out of sight, since the mound can rise to 4 feet. In this case, it's 200 feet from the house. Ransberg says that "if you build into your house or add several bedrooms, eventually, you'll have to reevaluate the drain field. But you shouldn't have to re-eval it at 10 or 15 years. The first of the two septic tanks will be pumped out once every three years; the second one, every six.

stone veneer that only went 8 feet high, above that they found the 1930s stone veneer. In attempting the chimney to pierce the roof, Michael decided against whatever the new brick. "I just say I left it because it shows the evolution of the house," he says.

One reason Doug thought the chimney should cause people to look twice is that it can be seen from the expensive new kitchen, which opens to the great room above an L-shaped counter. "The design outlines connecting rooms and connecting the spaces to each other is a wonderful way of drawing the house together," he says. Third, columns rose up through the counter to support the beams crossing the kitchen end of the mountain. To unite the counter with the adjoining spaces, the contractor cut and applied pieces of thin salvaged plaster on the side of the counter facing into the great room and dining room; they installed the new around the perimeter of the great room. Painted a base coat of canvas, followed by an antiquing glaze, the new veneer set off the kitchen brown paint on the walls above.

In the kitchen area, one corner of the wood floor had sagged 10 inches where the foundation wall had settled. Dargatzis and Schrock repaired the foundation process of jacking up piers, the masonry

new piers, and replacing the subfloor, instead, they staked the floor framing by cutting the joists from beneath. Next, they leveled out the existing floor with lightweight concrete and covered it with 5/8-inch cement board, then clad it with 16-inch-square random marble tiles laid out in a standard bond pattern. The light-hued gray picks up the color of the counter tops.

Under Doug's direction, the kitchen evolved into a gourmet's delight with stainless-steel appliances and barn-red lacquered-panel cabinets exhibiting a distressed finish. To achieve the pale ochre shade and aged appearance the clients wanted for their concrete columns, Dargatzis and Schrock mixed samples of the dye into white cement before pouring the concrete, then rough-crowled the surfaces for a mottled look. A surface stain in a slightly darker reddish brown was allowed to penetrate until "it felt about right," as the contractor put it, and then wiped off. "The columns look fantastic," Doug says. Dargatzis smiles and shakes his head. "Getting what you want with stained concrete can be a hell of a job," he admits.

Getting the look right for a whole house can be a gamble, too. In this case, the effort paid off in spades. ■



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HOMEOWNER'S STEP-BY-STEP PROJECT SERIES HANDBOOK

HANGING A LIGHT FIXTURE



BY CHARLES WARDELL

"Anyone can hang a light fixture and put in a switch," says electrician Allen Gallant. "It's just a matter of making the right connections, and good ones."

According to Gallant, who has worked with The Old House on the Watertown and Billerica projects, making these connections is relatively easy when a house is under construction and the framing is exposed. But running new wires behind the walls and ceilings of an older house is another matter entirely. "The trick is to do it without making lots of holes," he says.

In the Handbook feature, Gallant demonstrates how to install a new fixture and switch with a minimum num-

ber of holes, and then how to complete the circuit at the breaker panel. "Pins are the part of the job people are most afraid of," he says. "They think the voltage is going to jump out and bite them."

When amateur electricians go wrong, he says, it's with the little things: relying on tape instead of wire nuts to cover wire-to-wire connections, or not twisting wires clockwise before the nut goes on. "If you run a heavy load through a poor connection, it could overheat and burn up." And don't forget the ground wires. "Buy your own ground screws and secure them to the electrical box yourself," he says. "Then make sure you're just as careful connecting the ground wires as you are the black and white ones."

PHOTOGRAPHS BY DAVID CARRACE

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Tools & Materials



Vinyl-sheathed electrical cable—known in the trade as Romex—is the workhorse of house wiring. The most common version consists of two copper wires (also called conductors) insulated with a fiber black or white vinyl, and a bare copper ground wire (sometimes covered with green insulation). The black “hot” wire carries the current to the light, the white “neutral” wire completes the circuit, and the ground wire safely diverts power in case of a short circuit. Color coding prevents crossed wires (which cause shocks) and simplifies installation: just connect black to black and white to white.

Most residential circuits use 14- and 12-gauge wire, which can handle up to 15 and 20 amps, respectively. To figure out how much Romex you need, measure the distance it has to cover, then add 20 percent.

1. Romex cable
2. Serrated screwdriver
3. Utilityman's pliers
4. Wire strippers
5. Tape measure
6. Cordless drill with 1/8-inch bit
7. Drywall saw
8. 60-amp circuit breaker
9. Electrical tape
10. Pink tape (2)
11. 3/8-inch deep rental wall box
12. Mounting brackets (2)
13. Single-pole switch

14. 5/8-inch diameter 60-inch flexible drill bit
 15. Switch cover plate
 16. Wire staples and cable connector for breaker panel
 17. Screw-type bar hanger with drilling bit
 18. Wire nuts
- ALSO NEEDED:
Shop vacuums
Bending strap & threaded nipple
Cable straps for drilling bit
Grasp applier connectors

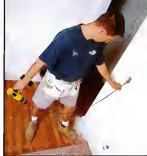
“A metal box is easier to install than a plastic one, and the switch is more likely to stay tight.”

—Allen Gallant



STEP 1: CUT THE BOX OPENINGS

- Using a stud finder, make sure there isn't a stud where you want to place the wall box. If there is, go to the right or left of it, within 8 feet of a door and about 4 feet off the floor.
- Using a 5/8-inch bit, drill a hole where you want to locate the switch, so it just penetrates the wall but doesn't go deeply into the wall cavity.
- Feed a fish tape through the hole and probe for pipes, wires, or other obstructions. If you find any, drill and probe elsewhere.
- Set the box against the wall, trace its outline, minus its “ears” (poor).
- Drill another hole at each corner of the outline, then cut along the lines with a drywall saw (poor). For lath-and-plaster walls, cut the plaster out with a utility knife, then gently cut the lath with a drywall saw.
- For the ceiling box, locate it exactly where you want the future to hang (if you're not for a stud, then cut a hole for the box following the same steps as above).



STEP 2: DRILL THROUGH THE FRAMING

- To get the wires from the switch to the ceiling cavity and to the circuit breaker, holes have to be drilled through the framing in the wall cavity above and below the switch.
- When drilling up into an attic or down into a basement, first make sure there are no pipes or wires in the way. If you can't see where the bit will punch through, then carefully while drilling. Should you hear the sound of metal or rebar, stop instantly.
- Feed a 40-inch flexible bit (available at most home centers for roughly \$10) into the wall-box hole until it contacts the top plate of the wall framing, then drill through it (poor).
- If the breaker panel is in the basement, drill a second hole down through the sole plate, in order to connect the switch with the panel.

STEP 3: WIRE THE SWITCH

- To hold the box firmly to the wall, slip the metal mounting bracket between one vertical side of the box and the opening (poor). The bracket's “legs” should project outside the opening, and its “arms” should lie snugly against the inside of the wall. With a pair of pliers, bend the legs over and into the box. Do the same with a second bracket on the opposite side of the box.

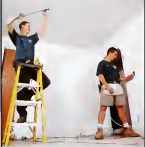


- Using Insulation's pliers, bend the end of each black wire into a crescent. Make one end slide wire around the top screw on the side of the switch, the other around the bottom screw, tighten both screws.
- Take the free end of the ground wire and attach it to the switch's green ground screw. Wrap electrical tape over the switch screws (poor).
- Carefully push wires and switch into the box and screw down the switch using the threaded holes on the rear of the box.

STEP 4: INSTALL THE CEILING BOX

- If there's a joist running across the middle of the hole where the future will be, tension the ceiling box directly to the bottom of the joist.
- If there's not a joist, insert a screw-type bar hanger through the hole and rest it on the top of the ceiling, perpendicular to the joists and over the center of the hole. Rotate the bar until the teeth at either end are sunk evenly into the joists.
- Knock out a hole in top of box and insert a plastic or metal cable clamp. Feed 8 inches of cable through clamp.
- Strip the cable's sheathing and wire insulation as in Step 4. Wrap the cable's ground wire clockwise around the box's ground screw, leaving at least 1/2 inches free (poor), then tighten the screw.
- Lift the box to the bracket that hangs from the box.





STEP 3: FISH THE WIRE

• Enter one of the holes for the ceiling box and the hole in the top plate, cut a small hole in the ceiling between the joists.

• Have a helper lead the fish tape, hook first, through the small hole and toward the top plate. At the same time, feed another fish tape, hook first, up the wall hole and through the top plate. Grab the first tape with the second, and pull the ceiling tape down and out the switch hole.



• Strip the end of a piece of cable, wrap the bare wires 3 or 4 times around the hook on the ceiling tape, then cover the connection with electrical tape (see photo).

• Use the same technique to pull the cable to the fixture location and from the ceiling box hole to the breaker panel.



STEP 4: WIRE THE WALL BOX

• Fry off both conductors from the top of the wall box and feed each cable into an opening, allow at least 8 inches of cable to extend past the box. Clamp the cables in place using the box's internal clamp.

• Using linemen's pliers, remove the sheathing from the cables in the box, then use wire strippers to take off the first 3 inches of insulation from the black (hot) and white (neutral) wires.

• Place the ends of the exposed wires together side by side, then twist them together clockwise using the linemen's pliers. Secure the connection by twisting on a yellow wire nut.

• In the back of the box, put in a ground screw. Wrap one of the ground wires around it, inserting the end 8 inches in, and tighten the screw. Twist the other ground wire five or six times around the first and cut the shorter wire off at the end of the twist. Cover the twist with a wire-wrap connector and secure fast with linemen's pliers.

• Slide the box into its opening (see photo).

STEP 5: HANG THE FIXTURE



• While a helper holds up the fixture, thread the fixture's top nut and/or tie nipple. Screw the threaded nipple onto the mounting strap until the distance from the strap to the end of the threaded wire is 1/2 inch longer than the depth of the fixture canopy.

• Push up the fixture's canopy on the threaded nipple, then secure with a wing nut (photo).

STEP 6: COMPLETE THE CIRCUIT

• At the circuit breaker panel, shut off the main breaker switch and remove the metal cover (taking the knockout).

• Fry one of the knockouts from the side of the panel with a screwdriver. Insert a plastic or metal cable connector (made for Romex) and feed the cable through it into the box. Strip the insulation off the cable and cut 3 inches of the black and white wires.

• Insert the white and ground wires into one of the terminals on the grounding bus bar, and tighten the screw. Attach the black (hot) wire to the breaker.

• Slide the wire on the back of the breaker onto the tongue of the hot bus bar. Push the breaker into place until it snaps onto the bar (see photo).

• Anchor the cable with wire staples 1/2 inch from the panel and every 45 feet after that.

• Turn on main breaker. If light comes on when the switch is flipped, screw on the switch cover plate. If it doesn't come on, carefully review and repeat previous steps. Patch any holes in the ceiling.



FISH STORY



For electrician Allen Galtner, "game fishing" hardly overstates a metaphor. In the parlance of his trade, fishing—routing wires run behind the walls and ceiling and between the floors of old houses—is "one of the most frustrating parts of this work," he says. "The same job could take two minutes or two hours."

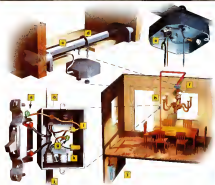
A typical fishing expedition requires two lengths of springy steel-jointed fish tape: one fed through a hole in the wall, the other through one in the ceiling. Galtner's goal, after drilling a hole through the wall's top plate (see Step 3), is to hook the tapes together and pull the linked ends through one of the holes (see illustration, left). Then it's just a matter of tying a cable to one line tape and pulling both cable and tape back through the other hole.

Sometimes, he gets lucky and works as a ceiling that lets him fish wire in four directions either along the joist bays or in the gaps between the strapping nailed to the underside of the joists. On other days, the fishing is tortuous. The joints aren't always pulled in right angles in the direction Allen wants to go, or the

joist bays are filled with cross-bracing, pipes, and ductwork that snag or block his tape. But no obstacle is so great that Galtner hasn't found a way around it. He need to, he gets into attics and basements, through closets, even behind bookshelves to achieve the number of holes he has to get. "I'll always take the shortest route from point A to point B, even if it means using three times as much cable," he says. And when, despite every effort, a tape won't do impossible obstacle, Galtner fishes for the screws at the base of the stud. He then cuts a 2-by-2-inch hole and chisels a shallow notch in the edge of the sheathing above or just as the cable can make an end run. Cutting notches is slow work, and once the cable is in place, each one has to be covered with a metal plate and patched. "I do my best to keep notching to a minimum," Galtner says.

PLANNING AHEAD

- Whenever routing drywall or plaster, hold a shop vacuum flexible hose to the area to vacuum up dust (left). "It's annoying when dust time ends looking to clean up drywall dust later."
- People should be able to walk around or sit and talk without a hanging fixture getting in the way (usually 64 to 78 inches off the floor or 66 to 70 inches off a table is a good height). "I make my customers sit down and then I adjust it while they're there."
- Don't overheat wires with pliers. "It could cause the wires to break later on."



MAKING CONNECTIONS

1. Switch ground screw
2. Cable to fixture
3. Screw-type hanger bar
4. Breaker
5. Gelling bar ground screw
6. Ceiling box
7. Wall box ground screw
8. Wall switch
9. Circuit breaker panel
10. Cable to circuit breaker panel
11. Clamp
12. Ring splice connector

More information on HOMEOWNERS' MAKE-DOOS is on a pull-out page.

LABOR OF LOVE

Renovation can tear couples apart; in this happy instance it moved the pair to wed

Can a house inspire a marriage? Kede Hinkle and Jim Ayoub would probably say yes. They had been engaged for over five years and living in a loft in Manhattan when they started looking

for a weekend getaway. Having already written off the trendy Hamptons, they decided to check out the lake-studded northwest corner of Connecticut. "I really didn't think I wanted another home," recalls Kede, co-owner of Yoma Textiles, a designer fabric company. "I was just hounding Jimmy by looking." In fact, when she first noticed an ad for the cottage in the local paper, she hesitated to tell Jim, a location manager for television commercials, because it sounded so perfect as to be unbelievable. According to the ad, the house had everything they'd dreamed of: a fireplace, two bedrooms and baths, a broad front veranda, and a sunporch. Not to mention a spectacular view extending past open fields, and three full acres with an in-ground pool nestled amongst the trees.

So, was something wrong with this picture?

Yes. The 1,300-square-foot cottage, originally built in 1880 as workers' housing for a nearby iron-ore mine, suffered from some uninspired cosmetic additions dating from the 1970s: faux-wood laminate flooring, a smoke-gray mirrored wall in the living room, and a kitchen that Kede charitably calls "very brown." But the couple decided to buy the place anyway.

And, having found the ideal spot for a wedding, they decided right then and there to end their long engagement.



ABOVE: Kede Hinkle and Jim Ayoub relax after the intense process of renovating their house—and planning their wedding, which took place on a hotly June afternoon in their backyard. One of the selling points of the house—and the element they appreciate the most—is the panoramic view from their porch, opposite.



*PHOTOGRAPHS BY MATTHEW BENOIST
STYLED BY MELISSA BROWN*



rooms, too. Although the former kitchen functioned well, Kate and Jim found it too heavy for their taste. To effect a redesign, before under the guidance of kitchen designer Judy Marie Murray—said the space and replaced every cabinet (2000). To enhance the space, undercabinet around the register above stove. Note that the kitchen and dining room flow into each other, but back door (to the left of the window) can access both areas with greater ease.

For, houses being what they are—and Kate and Jim being perfectionists in everything they do—planning the wedding would have to be their second joint project, renovations would come first. The couple closed on the house October 29 of last year and set a wedding date of June 17. Renovation of the very-beautiful kitchen was slated for January, leaving five months to make all the changes the calendar and their budget would allow. Their goal, aside from the kitchen update, was to restore the farmhouse to the way it might have looked over a century ago. Luckily, they found in Stephen Baker, a contractor in Lakeland, a man who shared their objective. "This job was different from most in that we weren't adding to," Baker says. "Instead, we were getting rid of things that shouldn't have been in a house of that vintage in the first place."

Like most renovations, the job ended up being much more complicated—and more costly—than the couple expected. The initial blow to their budget involved the mudrooms, which had been appended to the back of the house sometime during the '70s. When Baker went to pull up the wall

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to-wall gold carpet that covered the floor, he found a gaping hole under noted floorboards. So, on concrete blocks over a crawl space, the foundation had assembled five to piece dirt savings seal ventilation. The cost of repairing a would add a hefty \$30,000 to the overall budget, only a discouraging sign to the project. But Katz and Jon decided to proceed with the job rather than postpone it until the rest of the work was done (see "A First Foundation?"). "We felt we might as well get this part of the project over with," Katz says. "Then we could concentrate on the house itself."

For in there, the renovation of the staircase proceeded fairly smoothly, with only minor mishaps and delays. For example, Katz asked Belter if they could create the missing wood railing in the kitchen. But when the contractor heard it is to increase where he would cross the high but instead the couple had chosen for the railing, he discovered that the insulation between the joists was full of dead mice. He persuaded Katz he could replace the bulk of the old ceiling with new wood—and, after removing the rotted material as, he did. "The new pine boards look exactly like the ones that were there," Katz says. They were painted white, to give the ceiling a visual lift.

The next surprise occurred when the rest of the kitchen was gutted to the studs. The partition (and chimney) that separated this space from the adjoining dining room had a brick chimney. "We hoped there might be a small fireplace in there," Belter says, "but it simply enclosed the floor for the furnace." Katz and Jon opted not to cover the brick but rather to leave it off as a natural element in the design. Cleared and sealed, the brick adds time-worn character to both rooms. It also anchors a new peninsula Belter built to separate the spaces.

Instead of expensive custom cabinets, Katz—with the help of kitchen designer Jody Marie Scott, of Ed Harrington Inc., in Hillside, N.Y.—chose ready-made, fixed with vintage hardware that echoes existing elements in the house. Belter replaced some wall studs and added lengths of 2x4s along the walls to help support the upper cabinets. He attached the cabinets to the studs and blocks using secured 2x4-inch drywall screws, adding a finishing washer for a tight fit. He also secured adjacent cabinets together to strengthen them, to do so, he predrilled the holes and snaped the screws for his-



BEFORE, ABOVE: Insulated owner did nothing to enhance the living space. BELOW: Cosmetic changes to the room included a fire coat of whitewash to bring out the texture of the flanking timbers.



Look for a chance to see a 1-2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31-32-33-34-35-36-37-38-39-40-41-42-43-44-45-46-47-48-49-50-51-52-53-54-55-56-57-58-59-60-61-62-63-64-65-66-67-68-69-70-71-72-73-74-75-76-77-78-79-80-81-82-83-84-85-86-87-88-89-90-91-92-93-94-95-96-97-98-99-100-101-102-103-104-105-106-107-108-109-110-111-112-113-114-115-116-117-118-119-120-121-122-123-124-125-126-127-128-129-130-131-132-133-134-135-136-137-138-139-140-141-142-143-144-145-146-147-148-149-150-151-152-153-154-155-156-157-158-159-160-161-162-163-164-165-166-167-168-169-170-171-172-173-174-175-176-177-178-179-180-181-182-183-184-185-186-187-188-189-190-191-192-193-194-195-196-197-198-199-200-201-202-203-204-205-206-207-208-209-210-211-212-213-214-215-216-217-218-219-220-221-222-223-224-225-226-227-228-229-230-231-232-233-234-235-236-237-238-239-240-241-242-243-244-245-246-247-248-249-250-251-252-253-254-255-256-257-258-259-260-261-262-263-264-265-266-267-268-269-270-271-272-273-274-275-276-277-278-279-280-281-282-283-284-285-286-287-288-289-290-291-292-293-294-295-296-297-298-299-300-301-302-303-304-305-306-307-308-309-310-311-312-313-314-315-316-317-318-319-320-321-322-323-324-325-326-327-328-329-330-331-332-333-334-335-336-337-338-339-340-341-342-343-344-345-346-347-348-349-350-351-352-353-354-355-356-357-358-359-360-361-362-363-364-365-366-367-368-369-370-371-372-373-374-375-376-377-378-379-380-381-382-383-384-385-386-387-388-389-390-391-392-393-394-395-396-397-398-399-400-401-402-403-404-405-406-407-408-409-410-411-412-413-414-415-416-417-418-419-420-421-422-423-424-425-426-427-428-429-430-431-432-433-434-435-436-437-438-439-440-441-442-443-444-445-446-447-448-449-450-451-452-453-454-455-456-457-458-459-460-461-462-463-464-465-466-467-468-469-470-471-472-473-474-475-476-477-478-479-480-481-482-483-484-485-486-487-488-489-490-491-492-493-494-495-496-497-498-499-500-501-502-503-504-505-506-507-508-509-510-511-512-513-514-515-516-517-518-519-520-521-522-523-524-525-526-527-528-529-530-531-532-533-534-535-536-537-538-539-540-541-542-543-544-545-546-547-548-549-550-551-552-553-554-555-556-557-558-559-560-561-562-563-564-565-566-567-568-569-570-571-572-573-574-575-576-577-578-579-580-581-582-583-584-585-586-587-588-589-590-591-592-593-594-595-596-597-598-599-600-601-602-603-604-605-606-607-608-609-610-611-612-613-614-615-616-617-618-619-620-621-622-623-624-625-626-627-628-629-630-631-632-633-634-635-636-637-638-639-640-641-642-643-644-645-646-647-648-649-650-651-652-653-654-655-656-657-658-659-660-661-662-663-664-665-666-667-668-669-670-671-672-673-674-675-676-677-678-679-680-681-682-683-684-685-686-687-688-689-690-691-692-693-694-695-696-697-698-699-700-701-702-703-704-705-706-707-708-709-710-711-712-713-714-715-716-717-718-719-720-721-722-723-724-725-726-727-728-729-730-731-732-733-734-735-736-737-738-739-740-741-742-743-744-745-746-747-748-749-750-751-752-753-754-755-756-757-758-759-760-761-762-763-764-765-766-767-768-769-770-771-772-773-774-775-776-777-778-779-780-781-782-783-784-785-786-787-788-789-790-791-792-793-794-795-796-797-798-799-800-801-802-803-804-805-806-807-808-809-810-811-812-813-814-815-816-817-818-819-820-821-822-823-824-825-826-827-828-829-830-831-832-833-834-835-836-837-838-839-840-841-842-843-844-845-846-847-848-849-850-851-852-853-854-855-856-857-858-859-860-861-862-863-864-865-866-867-868-869-870-871-872-873-874-875-876-877-878-879-880-881-882-883-884-885-886-887-888-889-890-891-892-893-894-895-896-897-898-899-900-901-902-903-904-905-906-907-908-909-910-911-912-913-914-915-916-917-918-919-920-921-922-923-924-925-926-927-928-929-930-931-932-933-934-935-936-937-938-939-940-941-942-943-944-945-946-947-948-949-950-951-952-953-954-955-956-957-958-959-960-961-962-963-964-965-966-967-968-969-970-971-972-973-974-975-976-977-978-979-980-981-982-983-984-985-986-987-988-989-990-991-992-993-994-995-996-997-998-999-1000

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or fastening through the hard wood frames.

As in many old houses, the floors were uneven, so Belter had to shim most of the lower columns (and upstairs) to get them perfectly level. The rookick covered most of the shims, but on any visible ends and sides (for example, on the peninsula), Belter put in hardwood end pieces and painted them to match the columns as closely as possible. He also used a router to cut half-inch slots in the hardwood beneath the deck, where the beam shims could come through. Finally, he concealed the overhead best-dry in a soffit running above all the columns.

Despite its small size, the kitchen also houses an under-sinkwater washer and dryer, which sit, as beside the new fridge. "Since this isn't our primary residence, we could sacrifice some cabinet space for these essentials," says Kane. To stretch their money, Kane decided to go with laminated granite on either side of the sink—the areas that receive the most use—and pine slabs for the rest. Above the sink, Belter replaced a shabby slider-style window with a trio of larger oak windows incorporating divided lights that mirror the window openings in the staircase just beyond.

In the dining room, Kane and Jim planned only to smooth out the stains and paint over existing embossed wallpaper, but the project ballooned to include ripping up the wood laminate floor and rebuilding the balustrade of the adjacent stairway leading to the second floor. Belter tore out the ugly posts that normally screened the stair and replaced them with new ones, more graceful 4-by-6-inch poplar balusters. He also bound the existing columns at the base of the stairs. The tie handrail is a wood trim that matches the one along the wall.

Beneath the dining room's laminate and rubber floor of oak strips, Belter uncovered the original pine plank flooring, which closely matched that in the kitchen. "We'd done a little demo-



LEFT, TOP LEFT: The old balustrade was made of posts that belted, contractor Kip Belter says. "This frame is a cage," **TOP LEFT:** He splices new 4-by-6-inch poplar balusters 4 inches apart to conform to the ends, measuring the spacing before nailing each one in place. **TOP RIGHT:** He glues a baluster in place, then secures it with nails. **MIDDLE:** He glues a pine molding into a groove milled in the frame for a spring. **RIGHT:** Belter made the front door from pine planks which he distressed to look old, using layers and reproductions.

try work and soon some of the post under the best engineers," says Belter. "The frame had a few stains and holes, but we were able to successfully patch these with old wood found elsewhere in the house." To finish the doors, Belter hand-sanded and oiled the planks with Danish wood oil to give them a sheen. Even after the success of this effort, Belter considered Kane and Jim against attempting to reclaim the original floor in the adjoining living room. "That wing of the house, like the main room, sits above a crawl space," he says, "so I'm fairly certain any actual under-crawl would have rotted."

What he did agree to remove—in consultation with the living room were a 1970s-era black fireplace wall, a smudged mirror that sat on a shag on adjacent wall, sliding doors leading to the backyard, and a shag-carpeted jet over the entrance to the dining room. Belter de-emphasized the brick by covering it almost entirely with knotty-pine wood paneling. To play off the idea of a baroque great room, he installed the paneling rough side out, covered each plank with a beaded edge, and painted





A FIRM FOUNDATION

When gravelers came to build a foundation for Katie and John's house, some 20 years later, they told it to be a shallow concrete block foundation but neglected to provide adequate ventilation or drainage for runoff from the sloping backyard. Pressure from the water had caused the old concrete block to crumble. To fix the problem, Butler first had to dig a trench around the foundation. Then he and his crew propped up the old structure on pairs of jacks. "The room was small enough that we didn't need hydraulic jacks," he says.

The crew installed a series of perforated drainage pipes around the perimeter of the foundation to draw water off. The water flows away from the house, passing under the adjacent gravel driveway and into a flower bed, as well as under a brick walkway and into the back lawn. Luckily, the concrete footings under the foundation were in good shape, so Butler only had to build up the 42-foot walls with 8-by-16-inch concrete blocks. If necessary, the roof space can be accessed by a trap door in the basement floor.

Butler replaced sills and joists with rot-resistant, pressure-treated wood. His crew used anchor bolts to attach the sills to the concrete (painted with two layers of 3-inch-thick strips of Epoxystone, the overall thickness mandated by code). They then gently set the basement back on its new foundation. Braces made from 2x4s buttressed the structure until the crew backfilled the trench around the foundation with topsoil and gravel (see photo, inset).

After laying out a 6-mil poly covering on top of the dirt, Butler insulated the floor above the crawl space with rigid sheathing faced with foil on both sides. A layer of acrylic paper sandwiched between the insulation and a plywood subfloor helps prevent the floor from squeaking. Tongue-in-groove floorboards are heat pipe, left bare and polyurethane is applied.

Only a couple of studs had rotted at the bottom, next to the sill. Rather than replace whole studs, Butler's crew cut out the rotted portions, then slaved a new stud alongside each old one. Although the walls were simply gypsum board, Butler belatedly did this room by adding a beadboard ceiling and small built-in closet. He also isolated both the interior floor and the screen door. The room now serves as a cozy sitting room with a pull-out couch for guests.



led the entire wall with a thin coat of white paint, which masks the foam without concealing about evenly. Although the living room beam rafter bracing—just as Kane suspect the room may have been created from an old farmhouse structure—it is not structural but ornamental. Better whittled the rafters and skin coated the walls between them with plaster and a creamy white yellow to give the space a sunny look.

It turned out that the smoked rafters hid a 6-foot high, 12-inch deep cavity—formerly a window opening, as when you open the window. This was a perfect place for built-in shelving. Better constructed the shelves as six-inch slanted dovetails because the cavity had few true right angles. He connected the first, shell by shell, as he went along. He backed the shelves with wood paneling that matches the fireplace wall, but installed it horizontally to follow the direction of the shelves. The old sliding doors were exchanged for French doors, "which made an unneeded difference," Kane says.

"They are much more elegant," she adds. Finally, the jury rigged sleeping loft was dismantled, though some structural beams that support bearing doors were left in place.

In the sunporch, Katie and John created a nook made from breadboard to match that on the crib. Because the room is not insulated, the couple asked Butler to install a vent-free propane stove to warm it up for winter sleepovers. "Everyone gravitates here

when they wake up, to have a cup of coffee and look out at our amazing view of the Endicott hills," Kane says. It was this view that their wedding guests exclaimed over last June as they gathered for a champagne reception beneath a tent set up near the pool. The pretty scene is full bloom, the weather was warm, and the sun shone for all but a brief 10-minute shower. Only after the wedding was over, however, were Kane and Jan finally able to enjoy the thrill of their accomplishment. "Everyone got a real taste of why we love it here," Kane says. "But it was when everyone left, and we were all alone, that we could finally say 'We did it!'" ■



The sunroom was brightened with new beadboard wainscot, a refinished fir floor, and a slick coat of white paint.





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Although it was the decorative Americans of the Victorian era who first felt compelled to cover a house's naked foundation with shrubbery, it was the post-World War II builders of tract houses who gave such plantings a bad name. Nineteenth-century homeowners carefully selected from a wide range of shrubs, ivies, and other evergreens to dress up their facades, but to add veneer curb appeal to busy suburban landscapes and cover slab or concrete-block foundations inexpensively, "builders turned us a just a few types of fast-growing shrubs," says Tom Wirth, a Sherborn, Massachusetts-based landscape architect who has designed many residential landscapes for *The Old House*. As time passed and the shrubs sprawled, "people became used to the idea of having their houses surrounded by plants," he says. Contemporary landscape professionals have a nickname for the sea of green and overgrown look of American front yards: "cover and another." Now thinking aims for a cleaner approach. "Many houses do not require dense coverage," says Wirth. "Instead, landscape architects design plantings that take the entire yard into account, including the drive-

BLENDED OLD AND NEW
Landscape designer John Paulin placed the 70-year-old English for common boxwoods at his high-front, North Carolina home. To soften their look and add texture, he planted tall, leafy perennials (or heavenly bamboo) and blue and pink hydrangeas behind them. When a grass/clover mixes a transition from the bed to the lawn. The Boston ivy on the house turns crimson in the fall, then defoliates, leaving blue berries in its wake.

BY SUSAN GREEN PHOTOGRAPHY BY CHARLES HARRIS

way, homeowners shared with neighbor, and paths between the sidewalk and the house."

In suburban Massachusetts, Tim Wirth has plenty of opportunities to practice what he preaches. Early this spring, he was asked to landscape a single-story ranch house in Needham that a couple had recently purchased for the wife's elderly parents, the Moscos. The house was almost completely shaded by gangly rhododendrons and overgrown pines, and blacked by a feisty hawthorn and several heavy, low-hanging branches of a beautiful but ominous sugar maple.

A top priority at Wirth's expense was to make the house appear more inviting and attractive from the side walk and street. Another, in response to his clients' desire, was to give the homeowners something that would be instantly satisfying to look at. "Because the Moscos spend most of their time indoors, they wanted a lovely yard that they could enjoy from windows in the family room and dining nook. 'Curb appeal' is only part of the picture," says Wirth.

"When you view the property from inside it just as important." The design also evolved from this premise: Will there be many conditions and needs? "There are several subtle points to consider besides the way the landscape looks," says Sara Jane van Tripp, a Redding, Connecticut, landscape designer and author who managed her own nursery and landscaping business in Vermont for 17 years. "Climate conditions, the orientation of the house, and the lay of the land are just three. You should also make note of the architectural features of your house, as well as how you access it. If you have two doors, you may want to emphasize one and downplay the other with the planting design. Also, do you need extra shade or more protection? And, do you have to take kids or pets—or peppy crates that are crawling yards and the—into account?"

Some considerations may not be readily apparent until you sit on an assessment couch. Says Niren, a landscape architect from New York City with over 25 years' experience, numerous other practical concerns. "Air-conditioning condensing units, electric and gas meters, and utility boxes are just as ugly as an exposed basement pipe," she says. She also inquires about repairs made to the house that might affect the quality of the soil. If the siding has been washed, for example, some of the liquid might leach into the soil, making it too acidic, if bricks have been repointed, the soil will be too alkaline. In cases such as these, the conductor is not out.

When Wirth went to look at the Moscos' property to assess the existing conditions, he was accompanied by Roger Cook, TOA landscape contractor, who'll be performing the work at the site. The two experts had each individual specimen to ascertain whether



ADDING A DOSE OF COLOR

As part of his overall plan, John Paul planted flower beds on either side of the driveway pathway leading from the street to his house. Each year he extends the borders with more of his favorite seasonal favorites, such as dahlias, asters, poppies, coneflowers, and daylilies.

it should be ground and rational in its precise position, its shape and its another location in the yard, or removed entirely. "Most people are positive about their plans," Niren says. "I always tell my clients not to be afraid to start saying 'At the Moscos'." Wirth and Rager agreed that most of the plants were overgrown and poorly shaped and had to go. But "if there's anything worth while, we believe in saving it," Rager says. Here, they left the sugar maple as an anchor for the front yard, pruning it to enhance its shape. They weakened a poorly shaped but semi-wooded by adding specimen trees taken from another yard across the driveway. They also cut back one rhododendron and a magnolia that gained the corners of the house and transplanted some oaks, sweet gum, laurel, and a mock orange to the backyard. A Katsura grass specimen remained near the front door.

In developing a final appropriate plan, a landscape architect will study the orientation of the house and the slope of the yard, and check on the balance of light and shade in the yard. In developing a final appropriate plan, a landscape architect will study the orientation of the house and the slope of the yard, and check on the balance of light and shade in the yard. In developing a final appropriate plan, a landscape architect will study the orientation of the house and the slope of the yard, and check on the balance of light and shade in the yard.

to use white varieties will thrive there. "Sun and so build up more readily on the north side of the road," Niren says. "When they shade off, they'll look up almost anything planted underneath, especially evergreens." Adds van Tripp, "Shade patterns of early spring trees, even on a neighbor's property, can affect your selection. Every side of the house has its own microclimate." For the Moscos, as for other clients, Wirth chose plants that require little maintenance, mature clearly in a manageable size, and do not need frequent pruning. He selected plants as perfect candidates, especially dwarfed varieties, he says, or plants such as pines or spruce, which have been used to some degree and past reference.

To discuss how the planting will look, landscape designers draw up a plan. At the Moscos', Wirth was careful the perimeter of the facade of the house and noted the height of the proposed trees, the first floor windows (so he knew no plants would grow to block windows), and the screen. As a rule of thumb, the chosen plants are given as to obscure the foundation, while, in two-story houses, the trees that will grow only as to avoid the problem of pruning hard-to-reach limbs on the house. With unusually created a flowering dogwood called 'Cocoon house' 'Sarcoc' which branches out like a vine, at the low near the house. As a mature, it will screen some of the ugly-to-branch 'Sarcoc' which is more the same how than the foundation," he says. "This type of dogwood also bears a bark that, over time, peels to exhibit several under-colored layers, so it should draw the eye to the entrance."

Foundation plantings look much more generous when they are layered. The topsoil is bed considerably deeper. (Continued on p. 120)

The Case of the Disappearing Ranch House

It was their fault that the outrageous front yard of the Wirths' house in Needham, Massachusetts, needed some judicious editing. Before landscape architect Tim Wirth proposed any changes, he interviewed the Moscos' daughter and son-in-law, who were modernizing renovations on the house and yard, to determine if they or the Wirths had any specific requests. In this case, the older couple wanted to be able to enjoy their yard from inside the house. Otherwise, Wirth was given free rein to come up with a design. In that end, he and Tim Cook, landscape contractor Roger Cook recommended specimens they thought would be aesthetically pleasing—as well as hardy enough to withstand New England winters.



To help clients like the Moscos come to a decision about what plants to buy, Tim Wirth takes photos of the house "as is" (top) and prepares two plans, one showing the site with its existing plantings (center) and the other illustrating how he and his team will be reshaping it (right). The center site plan shows the site as it is. Wirth develops his design. "Any well thought-out foundation planting means different types of plants of varying heights and spreads so it's best to have a design on hand before purchasing a single plant," he says.

Making the Bed



A foundation bed is planned from the house out. **TIP LEFT: TIDING** And scraping contractor Roger Cook digs up compacted soil to a depth of at least 8 to 12 inches, then grades it away from the house—3 inch for 1 foot—to allow proper water runoff. **TIP/FA:** He measures and lays staggered grid holes for the plants; each hole is as deep as the root ball

and three times as wide. After setting plants in and backfilling with topsoil, he waters the soil thoroughly. **TIP RIGHT:** Tom Wirth checks the placement at the center of the bed. **TIP/FA:** The finished bed includes a 2-to 3-inch layer of bark mulch, to hold moisture. Until plants are established, they will have to be watered weekly.



PHOTO: BOB KANE AND COMPANY, WILSON, CALIF.

Total Yard Makeover



TIP/LEFT: Roger and a member of his crew pull out an old rhododendron. They will be transplanted at the back of the yard. To prevent the roots, they wrap the base of the plant in Plastic. Once it is in its new position, they'll cut the plant back so it can grow out in a more graceful shape. **TIP:** After removing old grass and preparing the soil underneath, the crew rolls out topsoil and for the front lawn space. As in the foundation planting bed, the soil requires a heavy dose of nutrients, and sand is added for drainage. When the soil is in place, it, like all the plants in the yard, gets a thorough watering.



The front yard makeover starts at the center of the 1-acre lot, curves around the house, and terminates at the pathway between the entry and garage. Tom Wirth's finished elevation shows the Nations how these plantings will look when they are fully mature, three to five years down the road. Plants are rendered in the shapes they assume: round, star-shaped, or weeping.

PHOTO: BOB KANE AND COMPANY, WILSON, CALIF.

(Continued from p. 124)

than the traditional basket type. "I like walk and carry beds," says Trapp says, "because they set off the geometry of the inside of a house." But only does a carry bed "a more useful bed," says Werh, "but it's more to grow around." To control the design into the yard, Trapp also used "flow lines" beds, which frame views of the house from the street. One, of pink roses, enclosed the sugar maple. The others, which include two compact white roses, cypress and five spruces, mirror from a neighbor's border that incorporates the same types of shrubbery. By repeating the colors, textures, and materials all plants throughout a bed or yard, Werh implements a classic method of unifying a landscape design. At the Nicosia, where oaks, dwarf laurel, heliopsis, and English yew are clustered throughout the foundation bed, and underplanted with "Seven Beauty" spirea, a heavy groundcover.

Once his clients approved the design, Werh and Rogge made their first trip to the nursery. Some of Werh's selections had to be modified because of the nursery's inventory. "We wanted to put in a white dogwood, but only the pinkish one was in stock," he says. While that choice melted, he was loathe to add, just because they were available, plants that would be out of sync with the scheme. Before planting a single shrub, Werh and Rogge laid out the plants on their former beds. "It's like putting on a costume," says Werh. "When they're all there, I anticipate the picture, adjusting as necessary to achieve a harmonious whole."

Rogge Cook set aside two full days to do the work. He delivered the first two hours of old growth, transplanting heavily specimens to the backyard, pruning trees and shrubs to rid them of dead wood and enhance their shapes, and setting in some of the plants. To ensure drainage away from the house, Rogge dug out the soil near the foundation bed replaced it, making sure to leave a 6-inch high margin of exposed foundation to prevent eawlow and cut from occurring along the rest of the siding. Although von Trapp points out that "old soil also settles into a 'sugary grade' which causes water to drain into rather than away from the ceiling," the opposite proved true at the Nicosia property. "The soil had built up a bag the four times and was causing the wood rotting," Rogge says. Later all is landscape professional, Werh and Rogge made by a rule of thumb when regarding a patch of 1 inch from the foundation to 3 feet away from the house.



PAINTING WITH PLANTS

Dan Hubbard's Mediterranean-style home in High Point, North Carolina, sits so close to the driveway that the plants in the foundation bed completely fill the space between the house and pavement. "I painted it completely by eye for texture and color," she says.

When a landscape planting like the Nicosia first goes in, it can look very symmetrical. Because many homeowners want their driveway to look as perfect as possible as quickly as possible, they often err on the side of overwatering. A landscape planting needs at least three years to mature—and to set to spread. Despite that landscape appearance, crowded plantings suppress problems with mold, rot, and nematodes, especially when they call against wood rotting. That is why landscape designers always plant at least 18 inches to 2 feet away from the house. One way to help a planting look more lush as it matures is to fill in gaps with annuals or perennials, as the planting fills in, these can be removed or transplanted elsewhere.

Rogge removed the soil in the beds to find it cloths before digging the holes for individual plants. He also amended the earth with compost to nourish the plants, and added a bit of sand to improve drainage. As he dug the holes, he measured them to the exact depth of each root ball and loosened each plant's roots before setting it in, to help it adjust more quickly. "When I backfill the hole with topsoil, I mound it around the plant to 2 to 3 inches above grade, so when I mow over the grade soil melts, the plants will be at the correct level," he says. He then watered the soil around each plant to eliminate air pockets within the root mass.

On the second day, Rogge completed his preparation of the soil, planted the remainder of the beds, and laid new soil where needed in the front yard. "Push soil to restore grade," he says. But it requires work. Rogge went in with a soil carter, removed old grass and weeds, collected, added compost and sand, and raked the area. Then he graded, leveled, and smoothed out the grading before laying out the steps and weeding them.

Of his headwork at the Nicosia, Rogge says, "We purposely gave these plants that will look better as time goes by."

"New plants are one of the least-expensive investments in your house," says Susan Nalson. "When you consider how much money people spend on decorating their homes, planning wisely makes sense," she adds. And the future rewards are steep—the least of which is that the house and yard will be more attractive and make a good impression on anyone who happens by. You hope they'll stop and admire the view. ■



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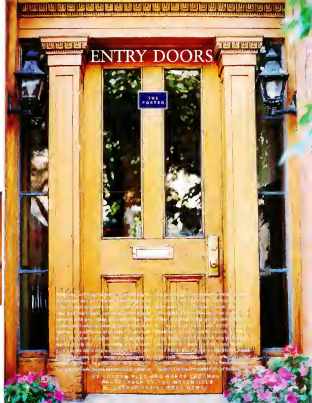


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HOUSE CALLS WITH STEVE
pgs. 20-25

Kitchen design consultant: Barbara Murphy, C.K.D., C.B.D., Nest Kally Design@aol.com, Portland, OR; 503-288-6343; www.nestkally.com
 Page 22: Former Chef single bowl sink and Entertainment/Drop sink, Windows Collection, West Haven, CT; 800-327-6676; www.windowscollection.com
 Vision Series double undermount sink, Franklin, Hatfield, PA; 800-626-5771; www.frazer.com Grand Toilet Under

monti web, Kinked, 800-461-1586,
www.kinkedsoftware.com

ASK NORM
pg. 26-33

Form insulation: Kynar, www.kynar.com
Thermal-breaking liquid: Loxar, Maxco Inc., Aven, OH, 800-321-0233, www.loxarproducts.com
Hardwood floor care: National Oak Flooring Manufacturing Association, www.nofa.org



And Nunn, p. 26: Before investing in a future opportunity as anticipated by experts, says Nunn, "Hesitancy will still tend to lead for investment and exit."

Our thanks to: Michael Scarpe, Wolcott, CT; Pat Hunt, Hazz Hardware Floors, Lexington, MA; Wood Window Workshop, Utica, NE; Mario Rodriguez, Fiskian Institute of Technology, Keananaw Department, New York, NY.

UNCLASSIFIED SECRET SERVICE
pg. 34-37

Dumb-water manufacturers: Wapac Elevator Company, Appleton, WI, 800-234-8729, www.wapackelevators.com.
Miller Manufacturing, Rabun Park, CA, 800-212-2177, www.miller-elevators.com.
W. Bruce Fowler Industries, Quebec, Canada, 800-276-3510, www.woodward.com.
Efficiency Systems Company, Warhous, NY, 516-338-4477.

**WHAT YOU NEED TO KNOW:
BATHROOM FAUCETS**
p. 36

Feature: Antique wide-spaced ivory
leaves with six cream handles by Kahle.

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polished chrome finish, 5617 40, 800
456-6177; www.bollinger.com

UPKEEP: ALL SQUARED AWAY
pg. 45-47

Tile contractor: Joe Perrone, Perrone Tile, Medford, MA, 781-386-4327.
Our thanks to Tile Council of America, Inc., Anderson, SC, 864-646-5433; www.tileusa.com.

TRANSFORMATIONS SPACE
MISSION
no. 44-52

Architect James McCalligan, (JMA Architects, Santa Rosa, CA, 707-576-4525).

MATERIALS: BARRIER METHOD
pp. 53-55

Blowwrap: Tyvek HomeWrap, Dupont, 800-648-9415; www.tyvek.com. Berncoode and R. Wynn, Simples Products, 800-



"Beats of Destruction," p. 18: A cat's paw-footrest and nail support are among the downblow fixtures featured this month in Talking Shop.

WHERE TO FIND IT

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Rauco-Wing, Raven Industries, 800-638-3438; wendroco wrap.com; Amowrap, Plastic Building Products, 800-227-7339; www.plasticbuildingproducts.com; Tiger Houswrap, WEA Remay, 800 214-2736; www.wemay.com
Isolating spacers: Cedar Insulations, Benjamin Obdyke Incorporated, 800 346-7853
For further information: National Association of Home Builders Research Center; [www.naahb.org](http://naahb.org); Building Materials and Wood Technology at the University of Massachusetts, Amherst; www.umass.edu

ed@benetwt. Building Science Corp.
www.buildingscience.com

**TALKING SHOP: TOOLS OF
DESTRUCTION**
pg. 60-62

Page 56: Super Wonder Bar grey bar #55-125, steel ripping bar #55-124. Stanley Works Inc., New Britain, CT, 100 792 6510, www.stanleyworks.com.
Wyden bar #3608. Falcon Corporation, Falcon, IL, 815-389-5211, www.falcon-corp.com.



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724-3818, www.charnelock.com

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partners.com 11-power 84-inch cam
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Wilmington, CA, 800-891-7815;

Page 60: Translation: Pro state senators. 2x

one Corporation, Campbell, CA, 408
666 8100, www.mccor.com

EY DESIGN: PAVING FACTS
 pp. 62-65

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214-383-8384 www.kineticservice.com
New Concept Kitchens, Inc., Glendale

Our thanks to Horacio Kumbell, author of *Refining Caliente: Making An Old*

TV PROJECT: A HOUSE DIVIDED
 pp. 74-82

Architects: John French and Linda Newhamker, Newhamker French Architects, Charlestown, MA, 617-242-7422
Interior Designer: Don Beltram, Back Bay Design Consultants, Charlestown, MA, 617-551-9080

RAJAL, PUNTWAL
pgs. 84-102

Blomswegor Michael Abrams, Design
Management, Chicago, IL 773
535-5196

General contractors: Steve Dangel and Mark Schreub, Dangel and Associates Builders, Inc., Beverly, MA 016
978-6870.

Segment rank: Bill Reuschert, Segment Desk, 9
 1000, Franklin, MI, 616-361-2436
One double on: Mark Lashfield, 1000

Colloidal Insulation Manufacturers Assoc.

HOMEOWNER'S HANDBOOK HANGING A LIGHT FIXTURE pg. 105-112

Fluorwood: Allen Gallant, Gallant
Electrics, Waldham, MA, 781-893-4636
Flexible drill bit: D'souza/Ba. Gordon T.

Free, Backford, IL, 815 397 7870,
www.cruisesystems.com

WHERE TO FIND IT

LORD OF LOVE
pp. 113-121

General Contractors: Stephens Bialas,
Lakeville, CT, 860-433-2898
Kitchen Countertops: Judy Marie Scott,
Ed Harrington Inc., Hillsdale, NY, 800-
453-1313

LUSH LIFE
pp. 123-125

Winn: pond plants, page 125
Near the sidewalk. Bearing red softies, but
Gonosporus "Gold Miners" and two com-
pact gold miners appear. Across the
driveway there "China Gold" holly (flier
mine!) in the foundation bed (left to right,
bearing racemes, yew, and smaller jet
center of "mushy" dense "Green Lustre" Japa-
nese holly (flier crumet), one climbing
hydrangea (*Aemodochloa pterocarpa*), three
"Berry's" heavy" pines, bearing (head-
down, here to house) three dwarf azaleas
here! (Kubota *Yoshioka* "Munster"), bearing
"Green Star" minnows, five *Hedera* on

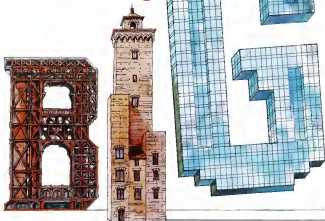


"*Values of Love*," p. 113. This paragraph serves as a study suggested Christianized edition.

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The 26 rooms, 13 baths, 2 bath wingover has a full basement and attic, a steeply pitched roof, and a 2-story turret. Most of its divided-light windows measure 24 inches from top to sill. One bay is highlighted by a turret with a small-shaped pedimented hood, a window on the master's bedroom peeks out at the Mississippi River. The kitchen is newly remodelled, with glass-enclosed cabinets and countertops.

The Wit house is located in the Hamburg National Register District, which contains the largest concentration of architecturally significant houses in Davenport. A guest application with a work plan and a budget totaling over \$125,000—most allocated to roof and exterior window repairs, such as replacing damaged claspboards and repairing the turret—has been prepared by the owner. It awaits submission to the State Historical Society of Iowa, which will help fund the restoration if the application is approved.

CONTACT

Michael Gertler
gertlerm@comcast.net



TOP LEFT: The regal Wit house dominates an intersection on the grandly filled Hamburg National Register District. Its southern face is graced by a large arched window. **TOP RIGHT:** One of two fireplaces featuring marble and alabaster materials. **BOTTOM:** The dining room, which has a built-in china cabinet and a table made from one solid wood.

If you know of a house that should be saved, please write to: Save This Old House, 6565 Avenue of the Americas, 47th Floor, New York, NY 10019.

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T MINUS TWO WEEKS.

I really did it. I'm leaving. Will I miss this place? Will this place miss me?

Can I be as good tomorrow as I was yesterday? Somebody bring me a

dolly and help me load up my life. It's time to re-enter the

world and be myself again. Hey, everybody,

come sign my big card and treat me to lunch.

My future is waiting. I don't want to be late.



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